Asbestos-Containing Material Re-Inspection Report

WA032 PFC JOE E. MANN UNITED STATES ARMY RESERVE CENTER
Site Code 53920
4415 North Market Street
Spokane, Washington 99207

Prepared for:

88th Regional Support Command
60 South O Street
Ft. McCoy, Wisconsin 54656

Submitted by:

U.S. Army Corps of Engineers
Louisville District
600 Dr. Martin Luther King, Jr. Place
Louisville, Kentucky 40202-2232

March 2014

EXECUTIVE SUMMARY

The US Army Corps of Engineers (USACE) conducted an Asbestos-Containing Material (ACM) Re-Inspection at the PFC Joe E. Mann United States Army Reserve Center (WA032), in Spokane, Washington on 22 January 2013. The work was conducted for the U.S. Army Reserve 88th Regional Support Command. The re-inspection was performed to confirm the results of an ACM inspection performed by others in April 1994 and March 2003 to identify any potential ACM not identified previously in the initial inspection and identify damaged friable ACMs.

Two structures were inspected. These included:

Building #1 – Administration Building

Building #2 – Area Maintenance Support Activity (AMSA) Shop

Homogeneous Areas

Fifteen homogenous areas (HAs) were identified during the 1994 inspection, thirty-one additional HAs were identified in the 2003 inspection. One new HAs was identified during the re-inspection. Subsequent to the re-inspection additional vandalism resulted in the identification of one additional homogeneous area by the 88th RSC. The identified HAs include:

1994 Inspection

- White acoustical ceiling tile
- White-brown floor tile
- Brown-red cove base
- Black cove base
- Green cove base
- Brown floor tile
- Black floor tile
- Off-white floor tile
- Floor soundproofing
- Boiler room gasket
- Electrical switchbox insulation
- Assembly hall thermal pipe insulation
- Wallboard/Lath and Plaster Walls

- Roof
- Insulated Metal Doors

2003 Inspection

- Pink Tile and Mastic
- Cream, Tan Tile and Mastic
- Glue Dots
- Ceiling Tile
- Tan/Brown 12x12 Tile/Mastic
- 2'x4' Ceiling Panels
- Dark Brown Cove Base Mastic
- Brown/Tan 12x12 Tile and Mastic
- Vibration Damper
- Dark Brown Cove Base Mastic (Kitchen)
- Dark Brown Cove Base Mastic (Training Room)
- Dark Brown Cove Base Mastic (Assembly Hall)
- Red Quarry Tile
- Paneling Mastic
- Glazing
- Gypsum Wall Board (GWB) & Joint Compound (Training Room)
- GWB & Joint Compound (Administration Area)
- GWB & Joint Compound (Medical Area)
- Vibration Damper
- Black Caulking
- Gray Caulking
- Interior White Insulation
- Dark Gray Grout
- Tile Adhesive
- Slip Sheet between Floors
- Glazing (2nd floor men's restroom)
- Pipe Insulation (Maintenance Building)
- GWB & Joint Compound (Motor Pool Oil Storage Area)
- GWB & Joint Compound (Motor Pool Battery Storage Area)

- Off-white 12x12 Tile
- Pipe Insulation (Boiler Room)

2014 Re-Inspection

- Wall Sound Proofing Insulation (Medical Area)
- Thermal System Insulation on steam pipes (identified post inspection visit)

ACMs

As a result of the 1994 inspection, three HAs were positively identified as ACM. The 2003 inspection identified seven ACMs. The 2003 inspection indicated that some of the assumed ACMs identified in the 1994 inspection had been abated and a 2012 memorandum from the 88th RSC indicated that an ACM identified in the 2003 inspection was abated, if the ACM was abated, this will be indicated in parentheses below. Based on the 2014 re-inspection observations and on the sample analytical results, USACE did identify one additional assumed ACM. The ACMs include:

1994 Inspection

- Brown 9”x9”Floor Tile and Mastic, throughout first floor
- Black 12”x12” Floor Tile and Mastic in medical x-ray and exam rooms
- Off-white 12”x12” Floor Tile and Mastic in medical area

2003 Inspection

- Mastic for pink tile in Chaplin’s Office
- Glue Dots associated with ceiling tiles in medical wing
- Mastic associated with 12x12 Tan/Brown floor tile in the administration area
- Vibration Damper in equipment room (ABATED per 2012 MFR)
- Dark Brown Cove Base Mastic in Training Room
- Dark Brown Cove Base Mastic in Assembly Hall
- Vibration Damper in Assembly Hall (ABATED per 2012 MFR)

2014 Re-inspection

- None

Assumed ACM. The following HAs were assumed to contain asbestos:

1994 Inspection

- Thermal Pipe Insulation in Assembly Hall (ABATED per 2003 Inspection)
- White 12”x12” Floor Tile with Tan Mastic
- Floor Soundproofing
- Boiler Room Gasket
- Electrical Box Insulation
- Insulated Metal Doors

- Roof

2003 Inspection

- Pipe Insulation within walls

2014 Re-inspection

- White Air Cell Type Thermal System Insulation

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ACRONYMS AND ABBREVIATIONS

ACBM	asbestos-containing building material
ACM	asbestos-containing material
AHERA	Asbestos Hazard and Emergency Response Act of 1986
GWB	Gypsum Wall Board
HA	homogeneous area
NESHAP	National Emissions Standards for Hazardous Air Pollutants
PLM	polarized light microscopy
RSC	Regional Support Command
TSI	Thermal System Insulation
USACE	United States Army Corps of Engineers
USARC	United States Army Reserve Center
USEPA	United States Environmental Protection Agency

1.0 INTRODUCTION

The US Army Corps of Engineers, Louisville District (USACE) has conducted an Asbestos-Containing Material (ACM) Re-Inspection at the PFC Joe E. Mann U.S. Army Reserve Center (USARC), facility number WA032, at 4415 North Market Street in Spokane, Washington (Site). The re-inspection was performed for the 88th Regional Support Command (RSC) for the purposes of environmental compliance and planning in preparation for real estate actions. The work was conducted to confirm the results of an ACM inspection performed by others in April 1994 and April 2003 at the Site and to identify any potential ACM not identified previously in the initial inspections and to document any changes in condition of previously identified ACM. Since completion of the previous inspections the site has been vacated and vandals have extensively damaged the interior of the building. This re-inspection paid particular attention to areas of vandalism to determine if materials, not previously assessed, had been exposed or damaged. Previous asbestos inspections for the site provided by the 88th RSC are included in Appendix A.

2.0 APPROACH

The following tasks were performed to meet the objectives of the project:

- *Asbestos Inspection* – USACE personnel inspected all interior and exterior building areas at the Site. The buildings inspected consisted of the following:

    - Building #1 – Administration Building
    - Building #2 – Area Maintenance Support Activity (AMSA) Shop

- *Suspect Asbestos-Containing Building Material (ACBM) Sampling* – For suspect ACBM not previously identified, the USACE collected bulk samples of the suspect material and submitted for laboratory analysis.

A photographic record of the areas inspected and/or sampled was maintained. The Photographic Log and photos, if applicable, are included in Appendix B. No new photographs are presented within this report if no new HAs were identified during the re-inspection survey and existing HAs demonstrated no material change in condition.

2.1 Information Sources

All documents provided by the 88h RSC for the Site and reviewed as part of this project are attached as Appendix A. Additionally, the Point(s) of Contact who enabled Site access to the USACE inspector provided information where applicable.

2.2 Limitations

Although this study attempts to confirm the presence of ACM, either previously identified or unidentified, it is possible that some area(s) of ACM escaped detection due to the limitations of

the study, the inaccuracy of available data sources, location inaccessibility, and/or the limited knowledge of Site personnel.

3.0 SITE INFORMATION

3.1 Installation Name and Location

Facility ID: WA032 – PFC Joe E. Mann United States Army Reserve Center
Facility Address: 4415 North Market Street, Spokane, Washington 99207

3.2 Facility Manager/Point of Contacts

BRAC Environmental Coordinator

Name: Meline Skeldon
Phone: 206-370-2207
Email: meline.e.skeldon2.ctr@us.army.mil

3.3 Inspector Contact Information

Inspector: Craig A. Coombs
Affiliation: USACE
Address: 600 Martin Luther King Jr Place, Room 351
Louisville, Kentucky 40202
Phone: 502-315-6324
Fax: 502-315-6309
Email: craig.a.coombs@usace.army.mil

The Inspector's Certification is provided in Appendix C.

3.4 Date of Inspection

Begin Date: 22 January 2014
End Date: 22 January 2014

4.0 ASBESTOS INSPECTION

4.1 Methods

Asbestos inspection and sampling procedures (if required) were performed in accordance with the Asbestos Hazard and Emergency Response Act of 1986 (AHERA) protocols published in 40 Code of Federal Regulations Part 763 Subpart E, October 30, 1987. Sampling procedures include sample collection of each suspect asbestos homogeneous material as recommended by *A Guide to Performing Reinspections Under the Asbestos Hazard and Emergency Response Act* (USEPA 1992). Homogeneous materials were determined by conducting an initial building

walkthrough to assess materials that were visually similar in color, texture, general appearance, and date of installation. If the inspector decided that a material was not similar in appearance and texture to other materials in the building, the inspector distinguished the material as unique and, if not previously sampled, collected samples of each unique material accordingly.

Following the US Environmental Protection Agency (USEPA) inspection protocols, the inspector placed each identified suspect homogeneous material into one of the following USEPA classifications:

Friable ACM. National Emissions Standards for Hazardous Air Pollutants (NESHAP) defines a friable ACM as any material containing greater than 1 percent asbestos, which, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure.

Category I Non-friable ACM. NESHAP defines a Category I non-friable ACM as packing, gaskets, resilient floor covering (except vinyl sheet flooring products which are considered friable), and asphalt roofing products that contain greater than 1 percent asbestos.

Category II Non-friable ACM. NESHAP defines a Category II non-friable ACM as any material, except for a Category I non-friable ACM, that contains greater than 1 percent asbestos and cannot be reduced to a powder by hand pressure when dry.

Additionally, suspect ACM were assessed for their general condition, using the terms “Good”, “Damaged”, or “Significantly Damaged”. Good condition is defined as a material that is not damaged and/or largely intact. Damaged is defined as a material that is less than 25 percent localized damage or less than 10% distributed damage. Significantly Damaged is defined as any material that is greater than 25 percent damaged or greater than 10% distributed damage.

The inspector estimated the quantity of suspect ACM using visual estimation, for previously identified suspect materials the previous inspection was used as the source for the quantity. This visual estimation was conducted using facility drawings (provided by the 88th RSC or Site personnel), pacing, counting tiles, and panels, rather than measured take-offs. As a result, actual quantities may differ between visually estimated values and physical measurements. Estimated quantities for each building are summarized in the Bulk Sample Log of Table 1, Appendix D. This summarizes all samples collected during this and all previous inspections.

If new HAs were identified that required sampling[1], bulk samples of suspect homogeneous ACM were collected to ensure that each distinct layer of material, if multiple layers were present, was represented in the sample. The inspector applied a wetting agent to friable surfaces before sample collection to reduce the potential for a fiber release. Upon collection, each sample collected was immediately placed in an individual plastic bag which was then sealed and labeled with a unique sample identification number. After sample collection, the sampling instruments were wiped clean using a wet, lint-free cloth to prevent cross-contamination

[1] Sampling was not conducted on ACMs identified during the original Inspection Survey.

between samples. The completed Functional Space and Homogeneous Area Forms are included in Appendix E, if applicable.

All samples remained in the inspector's custody until they were sent to the laboratory. Upon completion of the sampling activities, the bulk samples were delivered by the inspector to McCall and Spero Environmental, Inc at 1831 Williamson Court, Louisville, KY 40223 for analysis by EPA Method 600/R-93/116 using PLM analysis with dispersion staining, and 600/M4-82-020, as appropriate. McCall and Spero is a National Voluntary Laboratory Accreditation Program certified laboratory, certification number 101895-0. Laboratory Bulk Asbestos Analysis Reports as well as the completed Chain-of-Custody forms are provided in Appendix F, if applicable.

4.2 Inspection Results

One new HA was identified during the re-inspection survey on 22 January 2014, three samples of this HA were collected and submitted for analysis.

The results of sampling for this survey indicated that no asbestos was contained in the material sampled.

Due to vandalism at the site and additional HA was identified subsequent to the inspection. This material, white air cell thermal system insulation, was assumed to be an ACM based on the markings on the material (Photograph 4 in Appendix B). The approximate location of this material is shown in Appendix E drawings.

Based on the previous asbestos surveys conducted in 1994, 2003, and 2014, asbestos is present in the following materials at the site:

- Brown 9"x9"Floor Tile and Mastic, throughout first floor (1994)
- Black 12"x12" floor tile and mastic in medical x-ray and exam rooms (1994)
- Off-white 12"x12" floor tile and mastic in medical area (1994)
- Mastic for pink tile in Chaplin's Office (2003)
- Glue Dots associated with ceiling tiles in medical wing (2003)
- Mastic associated with 12x12 Tan/Brown floor tile in the administration area (2003)
- Dark Brown Cove Base Mastic in Training Room (2003)
- Dark Brown Cove Base Mastic in Assembly Hall (2003)
- Air Cell Thermal System Insulation (2014)

The Bulk Sample Log including analytical results is presented in Table 1 in Appendix D.

5.0 RECOMMENDATIONS

A regular maintenance schedule is recommended that includes a visual inspection of the material condition. Removal is not necessary since they do not appear to have the potential of becoming friable during normal day-to-day activities conducted within the building(s).

Some areas of damage associated with the ACMs were identified throughout the facility. The damage to these materials was not significant and did not result in the material becoming friable. The TSI was significantly damaged and in a friable condition. All other ACMs in the building that were observed were Category I non-friable materials as defined by the USEPA, which according to the USEPA rarely become friable. With the exception of the TSI, none of the materials were observed to be in a friable condition during the inspection and did not appear to pose an unacceptable risk to human health of the environment.

ACMs are required to be removed or disposed of in accordance with Washington State Regulations prior to any demolition, renovation, or remolding that would disturb these materials. Washington State Department of Labor and Industries and Spokane Regional Clean Air Agency require that asbestos abatement be performed using Certified Asbestos Workers under the direct onsite supervision of a Certified Asbestos Supervisor. Any work done that will disturb these materials should be conducted in accordance with all Federal, State, and Local regulations.

6.0 INSPECTOR'S SIGNATURE

A comprehensive and thorough asbestos inspection was conducted on these facilities by certified and experienced USACE asbestos inspector. Every effort was made to identify all ACBM in the facility, but due to random sampling techniques mandated by EPA, the possibility always exists that some ACBM remains undetected. The information presented in the report is true and accurate to the best of my knowledge:

Craig A. Coombs

20 March 2014
Date

APPENDIX A

Previous ACM Survey Reports

A Report Prepared For

Department of the Army
I Corps and Fort Lewis
Directorate of Engineering and Housing

ASBESTOS SURVEY
SPOKANE U.S. ARMY RESERVE CENTER
SPOKANE, WASHINGTON
CONTRACT DACA67-93-D-1017
DELIVERY ORDER 0003

AGI Project No. 14,340.201

AGI Technologies
300 120th Avenue N.E.
Building 4, Suite 215
Bellevue, Washington 98005
206/453-8383

April 15, 1994

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1.0 INTRODUCTION

1.1 GENERAL

The U.S. Army Corps of Engineers - Seattle District (USACE) retained AGI Technologies (AGI) to perform asbestos surveys of 23 U.S. Army Reserve Centers (USARC) within the 124th Army Reserve Command (ARCOM). This work was performed under Delivery Order 0003 of USACE contract DACA67-93-D-1017 dated September 24, 1993 and August 5, 1993, respectively.

This report presents data describing the location, approximate quantities, and condition of suspected asbestos-containing materials (ACM) in Buildings R0001 and R0002 at the Spokane, Washington USARC.

1.2 PURPOSE

Army Regulation 200-1 requires the 124th ARCOM to establish and maintain a comprehensive and effective asbestos management plan, including facility-wide asbestos surveys of all USARC structures. The purpose of AGI's services was to document suspected ACM in USARC buildings. The U.S. Environmental Protection Agency (EPA) defines ACM as any material with an asbestos content of 1 percent or more by volume. The results of this survey will serve as a decision-making guide for asbestos management in USARC facilities.

1.3 SCOPE OF WORK

The facility asbestos survey included visual inspection, sampling and laboratory analysis, hazard assessment, and documentation.

The specific scope of work at each facility included:

- Coordinate facility inspections in order to minimize interference with the ARCOM's training schedule.
- Conduct building inspections to identify assumed or suspected ACM.
- Collect bulk samples during the inspections where appropriate to determine whether suspected building materials are asbestos-containing.
- Submit samples to an accredited laboratory for analysis of asbestos content.
- Prepare an ACM inventory for each building/facility.
- Provide an ACM hazard ranking and removal prioritization (hazard assessment) based on overall condition and potential for disturbance.
- Prepare computer-aided design (CAD) drawings of facility buildings to show sample locations and extent of assumed or confirmed ACM.
- Prepare and submit an asbestos survey report for each facility, including the information listed above for each building.

2.0 ASBESTOS

2.1 MINERALOGY

Asbestos is the common name for naturally occurring fibrous materials that have relatively high resistance to heat and chemical damage. Asbestos comprises certain fibrous forms of minerals that belong to two mineralogical groups: serpentine and amphibole.

The serpentine group comprises magnesium silicate minerals with a layered structure. Chrysotile, the only asbestos member of serpentine, has an altered form in which the crystalline sheet structure has been transformed into microscopic fibrous crystals. Bundles of these fibers are visible without magnification. Also known as white asbestos, chrysotile is also recognized for its binding and strengthening properties. Chrysotile accounts for most commercial applications of asbestos.

Amphiboles are silicate minerals with a double-chain structure that can produce fibrous forms. Asbestos forms of amphibole include amosite (brown asbestos), crocidolite (blue asbestos), tremolite, actinolite and anthophyllite. Iron, calcium and sodium occur along with, or in place of, magnesium in these minerals. While amphibole forms of asbestos are very durable and have exceptional thermal properties, they are more brittle (less workable) than chrysotile and are used mostly for thermal system insulation.

2.2 APPLICATIONS AND USES

Because asbestos enhances the fireproofing capabilities of certain building materials, it can be found in high-temperature environments such as furnace or boiler gaskets, blocks, and insulation, as well as pipe and vent insulation or duct connector work. Asbestos was also used in some electrical switch and breaker boxes and as a component of electrical wire insulation because of its insulating properties.

Asbestos was frequently applied to existing building structures in conjunction with other materials to increase their fire rating. Examples of this are sprayed-on fireproofing of walls and ceilings, and the addition of cement asbestos board to existing surfaces. Many textured acoustical plaster and ceiling tile products also contain asbestos.

Asbestos can also enhance the strength and workability of some building materials. Some cement, drywall joint compound, and numerous asphalt and tar products contain asbestos, as do some vinyl floor tile and adhesive mastic products.

2.3 HEALTH HAZARDS

EPA has linked exposure to airborne asbestos particles to four diseases: asbestosis, lung cancer, mesothelioma, and nonrespiratory cancers.

Asbestosis: Asbestosis is caused by the scarring of lung tissue or pleural lining in the chest from inhalation of asbestos fibers. This restricts breathing and decreases the lung's effectiveness to intake oxygen into the bloodstream. Though the most common asbestos-related disease, asbestosis is slowly progressive, with a latency period of approximately 15 to 30 years. Exposure to relatively high doses of asbestos dust are necessary for asbestosis to be observed.

Lung Cancer: Lung cancer is the development of malignant tumors that grow and spread within lung tissue. Although lung cancer has been linked to many causes, a clear increase in risk is apparent to workers with known exposure to asbestos. Lung cancer risk especially increases among people who have been exposed to asbestos and also smoke. The latency period between exposure to asbestos and diagnosis of lung cancer is approximately 20 to 30 years. There appears to be no threshold or limit of exposure to asbestos at which lung cancer risk is diminished.

Mesothelioma: Mesothelioma is the cancer of the mesothelium, the pleural lining of the chest or abdominal wall. Considered to be a marker disease for asbestos exposure, mesothelioma is almost always fatal by the time of diagnosis. The latency period between exposure to asbestos and diagnosis of mesothelioma is 30 to 40 years. There appears to be no threshold or limit of exposure to asbestos at which mesothelioma risk is diminished.

Nonrespiratory Cancers: Nonrespiratory cancers with increased incidence rates have been noted among populations exposed to asbestos. These include cancers of the larynx, esophagus, stomach, kidney, pancreas and uterus.

3.0 REGULATORY FRAMEWORK

3.1 REGULATORY BASIS

The Clean Air Act (CAA) requires EPA to develop and enforce regulations to protect the general public from exposure to airborne contaminants known to be hazardous to human health. Asbestos was one of the first hazardous pollutants regulated under the CAA. On March 31, 1971, EPA promulgated the Asbestos Section of the National Emissions Standards for Hazardous Air Pollutants (NESHAP) under Title 40, Code of Federal Regulations (40 CFR) Part 61.

3.2 AHERA

In October 1986, the newly established Asbestos Hazard Emergency Response Act (AHERA) directed EPA to address the identification, evaluation, and control of ACM in primary and secondary schools. The final AHERA rules became effective in October 1987; they are found in 40 CFR 763 Subpart E, Section 763.80 - 763.99 under the Toxic Substances Control Act (TSCA).

On November 28, 1990, the Asbestos School Hazard Abatement Reauthorization Act (ASHARA) was enacted. Section 15 of ASHARA amended AHERA to require inspectors within public and commercial buildings to be accredited pursuant to the asbestos Model Accreditation Plan (MAP). This does not apply to management planners. ASHARA also required EPA to revise MAP to increase hands-on training and make other changes. EPA has not addressed all concerns and expects amendments to MAP will be finalized in early 1994.

3.3 PSAPCA

The Puget Sound Air Pollution Control Agency (PSAPCA) asbestos regulations, outlined below, are more stringent than those of the Spokane County Air Pollution Control Authority, whose jurisdiction includes Spokane, Washington. Consequently, this survey was conducted in accordance with PSAPCA regulations.

On December 12, 1985, PSAPCA adopted its first asbestos regulation, now Article 4 of Regulation III. EPA has delegated authority to PSAPCA to enforce standards within PSAPCA's four-county jurisdiction (King, Snohomish, Pierce, and Kitsap).

On November 20, 1990, EPA promulgated a revised NESHAP regulation to enhance enforcement and promote compliance. On February 11, 1993 PSAPCA adopted a revision to Regulation III, Article 4 to comply with requirements of the new NESHAP regulations and to improve legibility. This new regulation became effective on April 15, 1993. These changes affect all individuals and contractors who remove or disturb asbestos as part of an abatement, remodel, or demolition project in PSAPCA's jurisdiction. As part of this regulation, the project site must be inspected for asbestos using the procedures contained in 40 CFR 763.

3.4 OSHA

The Occupational Safety and Health Administration (OSHA) has established asbestos exposure regulations. The separate regulations for general industry, the construction industry, and use of respirators are in 29 CFR 1910.1001, 29 CFR 1926.58, and 29 CFR 1910.134, respectively. The construction industry regulations cover employees working in demolition, construction, or related activities where exposure to asbestos is likely. The general industry regulations cover all other activities where asbestos exposure is possible, such as employees working in buildings with ACM. The respirator regulations dictate proper respiratory protection and necessary air sampling and monitoring during asbestos work.

3.5 WISHA

The Washington Industrial Safety and Health Act (WISHA) provides for worker health and safety with respect to asbestos. Part I-1, Chapter 296-62 Washington Administrative Code (WAC), General Occupational Health Standards, outlines building owners' responsibilities to inform contractors about the presence and potential for disturbance of ACM. Specifically, the owner or owner's agent must inform the contractor of the presence and potential for disturbance of ACM prior to any construction, renovation, remodeling, maintenance, repair, or demolition involving the building in question.

3.6 PROJECT-RELATED REGULATIONS

Asbestos survey work for this contract was conducted by accredited personnel meeting the inspector training requirements of applicable federal, state, and local requirements, specifically AHERA (40 CFR 173-763) and PSAPCA Regulation III, Article 4. The testing laboratories successfully participate in the National Institute for Occupational Safety and Health's (NIOSH) Proficiency Analytical Testing Program. Surveys were conducted in accordance with AHERA and PSAPCA regulations.

Although AHERA regulations do not specifically apply to USARCs, the asbestos surveys were performed in general accordance with AHERA regulations. Because ACM was found at this facility, it is advisable that walk-through inspections be performed every 6 months and a thorough reinspection should occur within 3 years of this survey. In addition, preparation of an asbestos operations and maintenance (O&M) plan is advisable for this facility.

4.0 SURVEY PROCEDURES

4.1 INSPECTION PROCEDURES FOR ACM

AGI personnel inspected the Spokane USARC facility for ACM on November 10, 1993. The inspection was conducted in accordance with AHERA and PSAPCA regulations.

Facility inspection included two steps: an initial site walk-through and a subsequent full inspection. The initial site walk-through was conducted with the facility manager to familiarize the building inspectors with the facility layout. Facility plans, as-builts, and specifications or contracts were reviewed. The facility manager was also questioned about the history of maintenance, renovation, and asbestos abatement, if applicable, for each building.

For each building, suspected ACM was identified and functional spaces were documented during the full inspection. Quantity, condition, and extent of each suspected ACM were evaluated, and samples for bulk analysis were collected following AHERA guidance. For obvious ACMs, such as cement asbestos board, no samples were collected; these materials were designated as assumed ACMs. Roofs and roof-mounted heating, ventilation, and air conditioning (HVAC) equipment were visually evaluated, but no destructive sampling was performed.

4.2 ASSESSMENT, SAMPLING, AND SAMPLE HANDLING

Homogeneous material samples were collected during inspection in accordance with AHERA guidance for the type of suspected ACM. Locations and number of bulk samples were selected to provide optimal coverage while minimizing disruption to ongoing activities. After collection, samples were immediately moistened and placed into two layers of resealable plastic bags.

Each suspected material was assigned a unique identification number indicating facility, building, and material. For example, SPK-R0001-01 identifies the facility (SPK = Spokane), building (R0001 = Building R0001), and material (01 = material number 01). This number also served as the sample number, except for materials requiring multiple samples, for which letters in alphabetical order were added to the end of the material number to denote different samples. For materials containing adhesive mastic, an additional "T" or "M" was added at the end to denote tile or mastic, respectively. Sample information was recorded on field data sheets and locations were recorded on building plans.

Each sample container was appropriately labeled and secured. Sampling tools were cleaned by wiping with a wet towel after each sample collection. Photographs were taken at sample collection locations where building inspectors deemed appropriate. Repairs resulting from destructive sampling were performed as appropriate.

Assumed and suspected ACMs were divided into three categories: 1) surfacing materials; 2) thermal system insulation; and 3) miscellaneous material. The friability, quantity, and extent of each material were noted. Factors such as accessibility, contact frequency, and air or water erosion were recorded to yield an overall disturbance potential rating for each suspected material. Extent, quantity, and type of damage, if visible, were also recorded to characterize each suspected material's overall condition.

4.3 QUALITY CONTROL/QUALITY ASSURANCE

4.3.1 General

Quality control (QC) and quality assurance (QA) duplicate samples were collected during this 23-facility asbestos survey. QC duplicate samples were collected at a rate of approximately 5.8 percent of the total number of samples. Each of these samples was divided in half, placed into two sample containers, and labeled so that AGI could distinguish duplicates. All regular and QC duplicate samples were submitted to Analytical Technologies, Inc. (ATI) of Pensacola, Florida for analysis. QA duplicate samples were collected at a rate of approximately 1.0 percent of the total number of samples and submitted to Prezant Associates, Inc. (Prezant) of Seattle, Washington for analysis. QA and QC results are compared and discussed with the results for regular samples in Section 6.0.

4.3.2 Spokane Facility

No QA or QC duplicate samples were collected for the Spokane USARC.

4.4 CHAIN-OF-CUSTODY AND SHIPPING

Chain-of-custody forms were completed and included with all samples submitted to the analytical laboratories. Proper chain-of-custody protocol was maintained throughout sample collection and shipping.

4.5 ANALYSIS

Samples were analyzed in accordance with AHERA requirements using methods referred to in EPA's *Interim Method for the Detection of Asbestos in Bulk Insulation Samples* (EPA 600/M4-82020, December 1982). ATI and Prezant analyzed samples using polarized light microscopy. Both laboratories are accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) and participate in NIOSH's Proficiency Analytical Testing Program.

For materials requiring multiple samples, ATI generally analyzed the samples only until a positive result was achieved, or until all samples were shown to be negative. For example, if three floor tile samples (including mastic) were collected, and the first tile and mastic samples were positive, the remaining samples were not analyzed. Prezant analyzed all submitted samples.

Flooring material (floor tile or vinyl sheet flooring) with mastic is considered a single unit; the flooring and mastic were analyzed separately by the laboratories but not considered separately in assessing ACM status. A positive result for either material (flooring or mastic) confirms both together as an ACM.

4.6 INSPECTION LIMITS

Interior spaces and rooms of each building were inspected for ACM, and suspected materials were sampled. Building roofs, attached exterior surfaces, and HVAC equipment (if present) were also inspected.

5.0 FACILITY SUMMARY

5.1 FACILITY DESCRIPTION AND USE

The Spokane USARC was constructed in the 1950s, according to the facility manager. An addition was made to Building R0001, known as Mann Hall, in the 1970s. The facility serves as a small unit headquarters within the 124th ARCOM and has full-time staff who conduct daily operations.

The two buildings on site (Buildings R0001 and R0002) are used for office/ administration, classrooms, and vehicle maintenance during daily and weekend drill operations.

- Building R0001 is the facility headquarters with numerous offices, classrooms, storage areas, a firing range, and an assembly room.
- Building R0002, the facility motor pool, has offices, storage rooms, and three vehicle service bays.

5.2 PREVIOUS ASBESTOS WORK

According to the facility manager, an asbestos abatement has been performed since the facility was constructed but no plans or other details were known.

5.3 CURRENT ACM INVENTORY/PRIORITIZATION

5.3.1 ACM Summary

ACM is present within Building R0001 and is assumed from our observations to be present in Building R0002. Table 5.1 summarizes ACM at the facility.

5.3.2 ACM Hazard/Removal Prioritization

Following EPA/AHERA guidance, the hazard of individual ACMs is ranked based on overall material condition and disturbance potential. Based on each individual ACM hazard ranking, material removal prioritization is assigned. This ranking scheme is outlined below. Table 5.1 summarizes hazard and removal rankings for each ACM.

Overall Condition	Disturbance Potential	Removal Priority	Hazard Rank
Poor	Any	1 (highest priority)	7 (very significant hazard)
Fair	High	2	6
Fair	Moderate	3	5
Fair	Low	4	4

Overall Condition	Disturbance Potential	Removal Priority	Hazard Rank
Good	High	5	3
Good	Moderate	6	2
Good	Low	7 (lowest priority)	1 (low hazard)

ACM characterized as damaged and friable was designated as an emergency if readily accessible by facility staff or visitors.

5.3.3 AHERA Category

Following AHERA requirements, friable ACMs were also grouped by the following seven AHERA assessment categories:

1 - Damaged or significantly damaged thermal system insulation (TSI) ACM

2 - Damaged friable surfacing ACM

3 - Significantly damaged friable surfacing ACM

4 - Damaged or significantly damaged friable miscellaneous ACM

5 - ACM with potential for damage

6 - ACM with potential for significant damage

7 - Any remaining friable ACM or friable suspected ACM

5.4 DATA PRESENTATION

Table 5.1 summarizes ACM for the facility. Section 6.0 presents ACM inventories and floor plans for each contract building so that each subsection can serve as a stand-alone building ACM survey report.

5.5 USE OF THIS REPORT

A copy of this report should be sent to the facility manager. A responsible person, such as the facility manager, should understand this report and be able to inform contractors (specialized or general) about the presence of ACM before starting any construction, renovation, remodeling, maintenance, repair (including emergency) or demolition project at the facility; Part I-1, Chapter 296-62 WAC outlines this requirement. Copies of building-specific subsections of this report should be kept at each respective building. This will enable contractors to have ready access to ACM information.

Table 5.1

ACM - Facility Summary Report

AGI TECHNOLOGIES

Project Name	Ft. Lewis/DEH/Asbestos Surveys
Project Number	14,340.201
Facility	Spokane USARC

Building	Location	HOMOGENEOUS MATERIAL		Hazard Ranking	Removal Priority	AHERA Category (friable only)	Emergency?
		Assessment Number	Description				
R0001	Main Hallway	SPK-R0001-02	Floor Tile	1	7		No
R0001	Offices/Classrooms	SPK-R0001-06	Floor Tile	1	7		No
R0001	Medical Area	SPK-R0001-07	Floor Tile	1	7		No
R0001	Offices/Medical	SPK-R0001-08	Floor Tile	1	7		No
R0001	Second Floor	SPK-R0001-09	Floor Soundproofing	1	7		No
R0001	Boiler Room	SPK-R0001-10	Gasket	1	7		No
R0001	Boiler Room	SPK-R0001-11	Electrical Insulation	1	7		No
R0001	Assembly Hall	SPK-R0001-12	Thermal Pipe Insulation	7	1	1	Yes
R0001	Throughout Building	SPK-R0001-13	Metal Doors	1	7		No
R0002	Throughout Building	SPK-R0002-01	Metal Doors	1	7		No

6.0 BUILDING-SPECIFIC REPORTS

6.1 GENERAL

The following sections present individual asbestos inspection reports for Buildings R0001 and R0002.

Each building report includes:

- Inspection results, including building description and observations regarding suspected ACM.
- Building plans with locations of suspected/confirmed ACM and sample locations.
- A key to the building plan symbols.
- Summary data table of suspected/confirmed ACM for each building.

Appendix A presents laboratory analytical results. Appendices B and C, respectively, document analytical laboratory and inspector accreditation.

6.2 BUILDING R0001

Facility: Spokane USARC - Mann Hall
Inspection Date: 10 November 1993
Inspectors: John Ambrose and Bill Dewey
Survey Contractors: AGI

6.2.1 Building Description and Use

Building R0001 is a two-story office/classroom building with an indoor firing range in the basement. The building is constructed primarily of concrete block, brick, and metal frame walls with metal frame and an asphalt/gravel roof.

6.2.2 Survey Results

As shown on Figures 6.1a, 6.1b, and 6.1c, the following suspected ACMs were observed for this building:

White Acoustical Ceiling Tile: White 12-inch by 12-inch acoustical ceiling tile covers the entire ceiling and most of the walls of the second floor and the firing range. The tile is supported by metal framework and is partially damaged around the firing line area. Samples SPK-R0001-01A through -01E indicate this tile is not an ACM.

White-Brown Floor Tile: White-brown 12-inch by 12-inch floor tile with tan mastic covers most of the first floor hallway. Samples SPK-R0001-02A through -02C indicate the tile and tan mastic are not ACMs; however, the laboratory documented that asbestos is present in traces of black mastic adhering to the tan mastic. Because the occurrence of the black mastic, which may be an ACM, may be more widespread and concentrated, the mastic is assumed to be an ACM.

Brown-Red Cove Base: Brown-red cove base with brown mastic is located in many offices on the first floor. Samples SPK-R0001-03A through -03C indicate this cove base and mastic are not ACMs.

Black Cove Base: Black cove base with brown mastic is located in the hallway and several offices on the first floor. Samples SPK-R0001-04A through -04D indicate this cove base and mastic are not ACMs.

Green Cove Base: Green cove base with tan mastic is located within the assembly hall. Samples SPK-R0001-05A through -05C indicate this cove base and mastic are not ACMs.

Brown Floor Tile: Brown 9-inch by 9-inch floor tile (brown, red, and white) with black mastic is located throughout much of the first floor office/classroom area. Samples SPK-R0001-06A through -06C indicate this tile and mastic are ACMs.

Black Floor Tile: Black 12-inch by 12-inch floor tile with black mastic is located in the medical x-ray and examination rooms in the northwest corner of the first floor. Samples SPK-R0001-07A and -07B indicate this tile and mastic are ACMs.

Off-White Floor Tile: Off-white 12-inch by 12-inch floor tile with black mastic is located in the addition on the northern part of the building. Samples SPK-R0001-08A through -08C indicate this tile and mastic are ACMs.

Floor Soundproofing: Soundproofed hardwood floors are located throughout much of the second floor. Because no penetrating samples were collected through the hardwood floors, the floor soundproofing is assumed to be an ACM (assessment SPK-00001-09).

Boiler Room Gasket: Dark gray gasket material is located on a furnace/boiler face connection. Because no sample could be collected without damaging the furnace, the gasket is assumed to be an ACM (assessment SPK-R0001-10).

Electrical Switch Box Insulation: Two electrical panels within the boiler room are assumed from our observations to contain ACM insulation (assessment SPK-R0001-11).

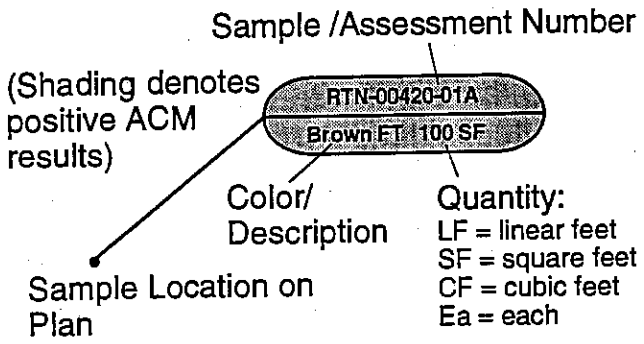
Assembly Hall Thermal Pipe Insulation: White thermal pipe insulation covers the steam heat piping in the assembly room. This was the only assumed ACM pipe insulation found at the facility; pipe insulation throughout the remainder of the building has been replaced with fiberglass. The pipe insulation consists of 3-, 6-, and 8-inch-diameter air-cell insulation with probable hand-packed mud around the fittings. Approximately 362 feet of this insulation is assumed to be ACM (assessment SPK-R0001-12). Damage to insulation was observed below two steam traps at grid coordinates H-26 and J-36 (see Figure 6.1b) and on part of the 6-inch line between grid coordinates I-26 and J-26. Damage has caused the insulation to be friable, with the highest hazard and removal priority.

Insulated Metal Doors: Insulated metal doors (eight total) are assumed from our observations to contain ACM (assessment SPK-R0001-13).

Wallboard/Lath and Plaster Walls: Wood or metal frame walls and ceilings, covered by either wallboard or lath and plaster, were inspected, and no suspected ACMs were visible. Wall materials such as wallboard, joint compound, and plaster, however, may contain asbestos, and walls may have been repaired or renovated in unidentified areas using ACMs. It is therefore impracticable to obtain representative samples of these materials even by sampling all individual walls and ceilings, which was not done for this survey. Because confirmatory samples were not collected, all individual walls and ceilings should be considered as potentially containing ACMs. Prior to any future repair, renovation, demolition, or other maintenance activities involving any wall or ceiling, fully penetrating core samples of wall/ceiling materials must be collected and analyzed to protect human health and the environment.

Roof: The roof and associated HVAC equipment were inspected, and no suspected ACMs were visible. Because destructive sampling may cause irreparable roof damage, confirmatory samples of all roofing materials were not collected and the roof should be considered as potentially containing ACMs (particularly in tar and roofing cement). Prior to any future repair, renovation, demolition, or other maintenance activities involving the roof, fully penetrating core samples of roofing materials must be collected and analyzed to protect human health and the environment.

Sample Location Key



Legend
Extent of Asbestos-Containing Material (ACM)

- ACM - Floor/Floor-Mounted Equipment
- ACM - Ceiling/Ceiling-Mounted Equipment
- ACM - Floor & Ceiling
- ACM - Sprayed-on Ceiling
- ACM - Wall
- ACM - Pipe Insulation (Horizontal Run)
- ACM - Pipe Insulation (Vertical Riser)
- ACM-Assumed Insulated Metal Door

Homogeneous Material Code

AC	Acoustical Material
BI	Boiler Insulation
CA	Caulking/Putty
CB	Cement Asbestos Board (Transite)
CP	Cement Asbestos Pipe
CT	Ceiling Tile
CV	Cove Base
DP	Duct Paper
ET	Exterior Siding Tile
EW	Electrical Wire/Switch Insulation
FC	Flexible HVAC Connector
FP	Fireproofing
FS	Floor Soundproofing
FT	Floor Tile
GA	Gaskets
IN	Spray-in Wall Insulation
JC	Joint Compound
LN	Linoleum (Vinyl Sheet) Flooring
MA	Mastic
MI	Other Miscellaneous Material
MT	Mortar
PA	Paint
PC	Popcorn Ceiling Material
PF	Pipe Fitting Insulation
PI	Pipe Insulation
PL	Plaster
RM	Roofing Material
SM	Other Surfacing Material
TI	Tank Insulation
TP	Tar Paper
WB	Wallboard
WP	Window Putty/Glazing

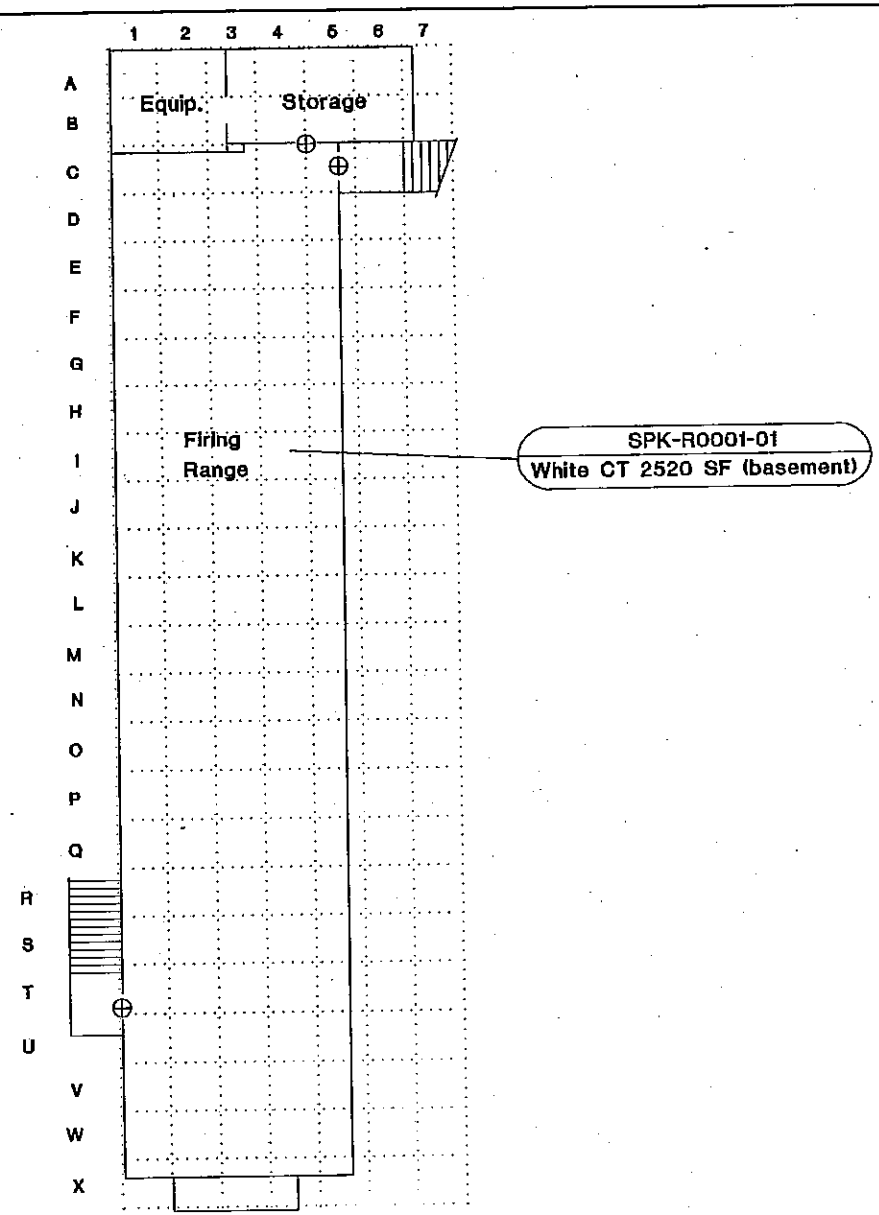
AGI TECHNOLOGIES

Asbestos Survey Classification System

Fort Lewis DEH/Asbestos Surveys
Washington and Oregon

PROJECT NO.	DRAWN	DATE	APPROVED	REVISED	DATE
14,340.201	KM	13 April 94	SJB		

fl201leg.PM5



Basement

N

0 20

Reference: Directorate of Engineering and Housing, Ft. Lewis, WA, Custodial Services Plan

AGI TECHNOLOGIES

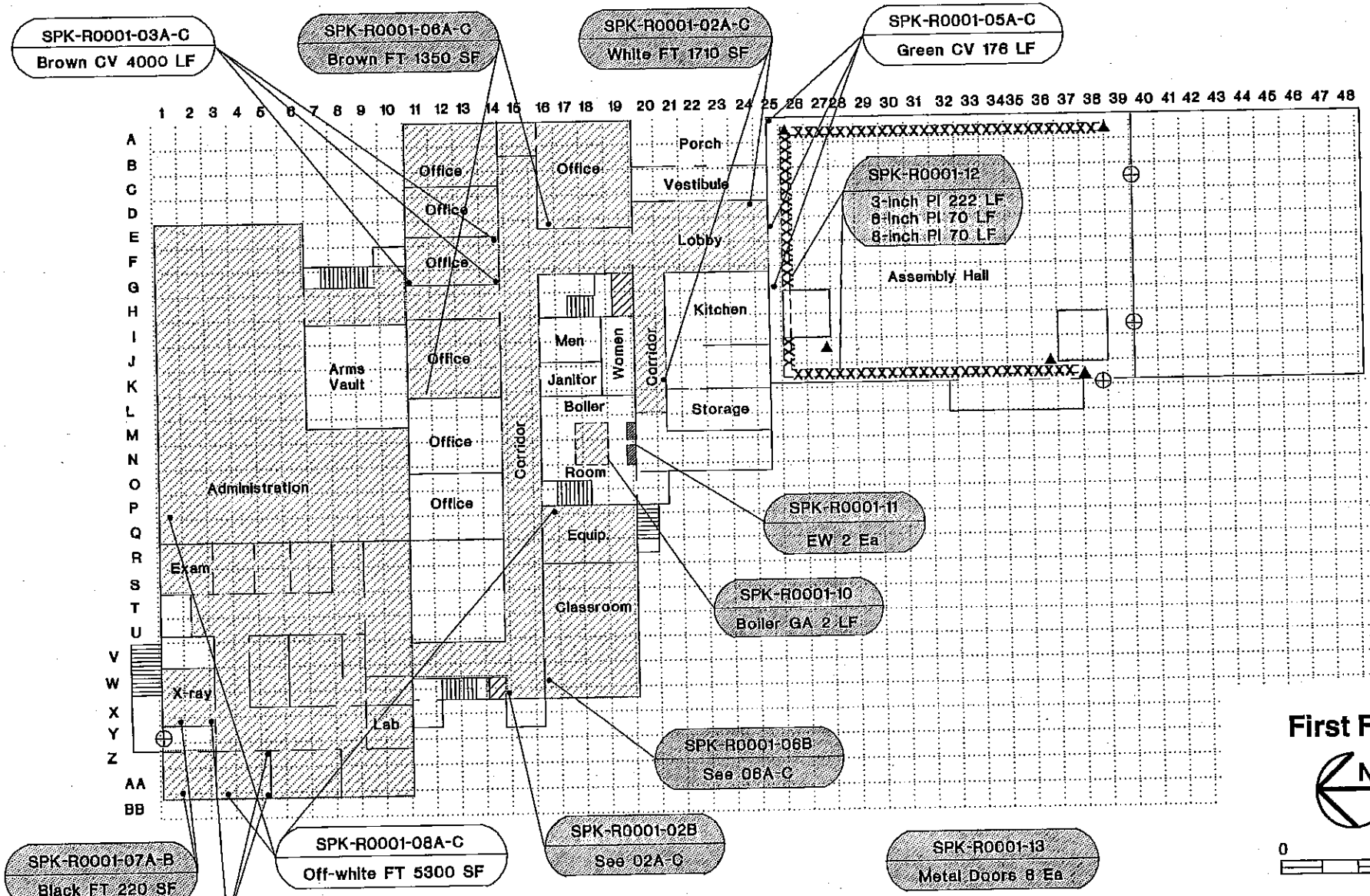
ACM and Sample Locations for Building R0001

Fort Lewis DEH/Asbestos Surveys
Spokane USARC (Mann Hall)
Spokane, Washington

FIGURE **6.1a**

PROJECT NO.	DRAWN	DATE	APPROVED	REVISED	DATE
14,340.201	KM	13 April 94	SHA		

FTLEWBDR.PM5



Reference: Directorate of Engineering and Housing, Ft. Lewis, WA, Custodial Services Plan

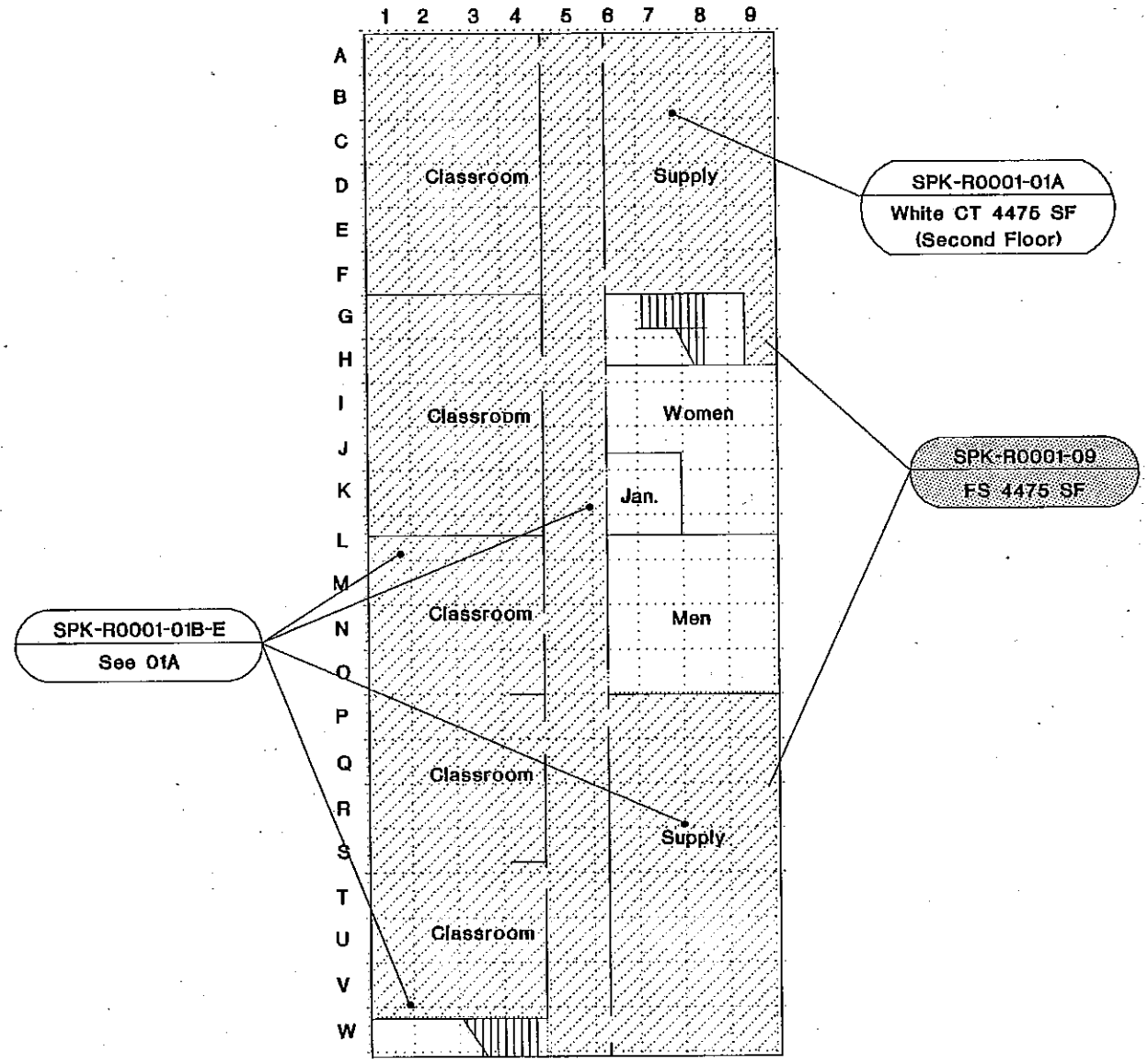
AGI TECHNOLOGIES

ACM and Sample Locations for Building R0001

Fort Lewis DEH/Asbestos Surveys
Spokane USARC (Mann Hall)
Spokane, Washington

FIGURE **6.1b**

PROJECT NO.	DRAWN	DATE	APPROVED	REVISED	DATE
FTLEWBDR.PM5	14,340.201	KM	13 April 94	SHA	



Reference: Directorate of Engineering and Housing, Ft. Lewis, WA, Custodial Services Plan

AGI TECHNOLOGIES

ACM and Sample Locations for Building R0001

Fort Lewis DEH/Asbestos Surveys
Spokane USARC (Mann Hall)
Spokane, Washington

FIGURE **6.1c**

PROJECT NO.	DRAWN	DATE	APPROVED	REVISED	DATE
FTLEWBDR.PM5	14,340.201	KM	13 April 94	SHA	

Asbestos Summary Report

AGI TECHNOLOGIES

Project Name	Ft. Lewis/DEH/Asbestos Surveys
Project Number	14,340.201
Facility	Spokane USARC
Building	R0001
Date	11/10/93

Inspectors	John Ambrose	
	Bill Dewey	
Project Task Manager	Scott Adamek	

HOMOGENEOUS MATERIAL

Assessment Number	SPK-R0001-01
Type	Miscellaneous
Description - General	Ceiling Tile
Description - Detailed	White 12" x 12" ceiling tile
Total Quantity	6995 Square Feet
Friable	No
Air Plenum	No
ACM Status	Negative
Hazard Ranking	
Removal Priority	
AHERA Category	
Emergency?	No
Comments	Tile supported by metal frame. 4475 SF on second floor, 2520 SF in basement.

OCCURRENCE		DISTURBANCE POTENTIAL					MATERIAL CONDITION			
				Erosion			Damage			
Location (Functional Space)	Quantity	Accessibility	Contact Frequency	Air	Water	Overall Disturbance Potential	Extent	Type	Quantity	Overall Material Condition
2nd Floor & Rifle Range	6995 SF	Low	Low	Low	Low	Low	None Visible			Good

SAMPLING						ANALYSIS RESULTS				
						% Asbestos Present from PLM				
Sample Number	Date	Time	Location Figure	Grid Coordinate	Height (Feet)	Chrysotile	Amosite	Other Asbestos	% Total	Comments
SPK-R0001-01 A	11/10/93	1410	5.5a	B-F	8					ND

Notes: LF = Linear Feet; CF = Cubic Feet; NS = Not Sampled; NA = Not Analyzed; *ACM status confirmed for tile/flooring, mastic, or both

SF = Square Feet; EA = Each; ND = Not Detected; NA(IS) = Not Analyzed due to Insufficient Sample; **ACM status assumed due to ACM tile/flooring, mastic, or both attached to this tile/floor material

Hazard Ranking: 1 (Low Hazard) to 7 (Significant Hazard)

Removal Priority Ranking: 7 (Low Priority) to 1 (Highest Priority)

Disturbance Potential - Likelihood that suspected ACM will release fibrous asbestos (Low, Moderate, High)

Material Condition - State of material's structural integrity (Poor, Fair, Good)

Asbestos Summary Report

AGI TECHNOLOGIES

Project Name	Ft. Lewis/DEH/Asbestos Surveys
Project Number	14,340.201
Facility	Spokane USARC
Building	R0001
Date	11/10/93

Inspectors	John Ambrose
	Bill Dewey
Project Task Manager	Scott Adamek

SPK-R0001-01 B	11/10/93	1415	6.1c	R - 7	8					ND
SPK-R0001-01 C	11/10/93	1420	6.1c	L - 1	8					ND
SPK-R0001-01 D	11/10/93	1425	6.1c	V - 1	8					ND
SPK-R0001-01 E	11/10/93	1430	6.1c	K - 5	8					ND

Notes:
LF = Linear Feet
SF = Square Feet
CF = Cubic Feet
EA = Each
NS = Not Sampled
ND = Not Detected
NA = Not Analyzed
NA(IS) = Not Analyzed due to Insufficient Sample
*ACM status confirmed for tile/flooring, mastic, or both
**ACM status assumed due to ACM tile/flooring, mastic, or both attached to this tile/floor material

Hazard Ranking: 1 (Low Hazard) to 7 (Significant Hazard)
Removal Priority Ranking: 7 (Low Priority) to 1 (Highest Priority)
Disturbance Potential - Likelihood that suspected ACM will release fibrous asbestos (Low, Moderate, High)
Material Condition - State of material's structural integrity (Poor, Fair, Good)

Asbestos Summary Report

AGI TECHNOLOGIES

Project Name	Ft. Lewis/DEH/Asbestos Surveys
Project Number	14,340.201
Facility	Spokane USARC
Building	R0001
Date	11/10/93

Inspectors	John Ambrose	
	Bill Dewey	
Project Task Manager	Scott Adamek	

HOMOGENEOUS MATERIAL

Assessment Number	SPK-R0001-02
Type	Miscellaneous
Description - General	Floor Tile
Description - Detailed	White 12" x 12" floor tile (80% off-white, 20% brown) with tan mastic
Total Quantity	1710 Square Feet
Friable	No
Air Plenum	No
ACM Status	Assumed**
Hazard Ranking	1
Removal Priority	7
AHERA Category	
Emergency?	No
Comments	Occurence of black mastic (which may be ACM) attached to tan mastic may be widespread and more concentrated.

OCCURRENCE		DISTURBANCE POTENTIAL					MATERIAL CONDITION			
Location (Functional Space)	Quantity	Accessibility	Contact Frequency	Erosion		Overall Disturbance Potential	Damage			Overall Material Condition
				Air	Water		Extent	Type	Quantity	
Main Hallway	1710 SF	High	Moderate	Low	Low	Low	None Visible			Good

SAMPLING						ANALYSIS RESULTS				
Sample Number	Date	Time	Location			% Asbestos Present from PLM				
			Figure	Grid Coordinate	Height (feet)	Chrysotile	Amosite	Other Asbestos	% Total	Comments
SPK-R0001-02 A,M	11/10/93	1430	IL 1b	D - 24	0					<1% (black mastic)

Notes: LF = Linear Feet; CF = Cubic Feet; NS = Not Sampled; NA = Not Analyzed; *ACM status confirmed for tile/flooring, mastic, or both

SF = Square Feet; EA = Each; ND = Not Detected; NA(IS) = Not Analyzed due to Insufficient Sample; **ACM status assumed due to ACM tile/flooring, mastic, or both attached to this tile/floor material

Hazard Ranking: 1 (Low Hazard) to 7 (Significant Hazard)

Removal Priority Ranking: 7 (Low Priority) to 1 (Highest Priority)

Disturbance Potential - Likelihood that suspected ACM will release fibrous asbestos (Low, Moderate, High)

Material Condition - State of material's structural integrity (Poor, Fair, Good)

Asbestos Summary Report

AGI TECHNOLOGIES

Project Name	Ft. Lewis/DEH/Asbestos Surveys
Project Number	14,340.201
Facility	Spokane USARC
Building	R0001
Date	11/10/93

Inspectors	John Ambrose
	Bill Dewey
Project Task Manager	Scott Adamek

SPK-R0001-02 A-T	11/10/93	1430	6.1b	D - 24	0					ND
SPK-R0001-02 B-M	11/10/93	1435	6.1b	X - 14	0					ND
SPK-R0001-02 B-T	11/10/93	1435	6.1b	X - 14	0					ND
SPK-R0001-02 C-M	11/10/93	1440	6.1b	K - 21	0					ND
SPK-R0001-02 C-T	11/10/93	1440	6.1b	K - 21	0					ND

Notes:
LF = Linear Feet
SF = Square Feet
CF = Cubic Feet
EA = Each
NS = Not Sampled
ND = Not Detected
NA = Not Analyzed
NA(IS) = Not Analyzed due to Insufficient Sample
*ACM status confirmed for tile/flooring, mastic, or both
**ACM status assumed due to ACM tile/flooring, mastic, or both attached to this tile/floor material

Hazard Ranking: 1 (Low Hazard) to 7 (Significant Hazard)
Removal Priority Ranking: 7 (Low Priority) to 1 (Highest Priority)
Disturbance Potential - Likelihood that suspected ACM will release fibrous asbestos (Low, Moderate, High)
Material Condition - State of material's structural integrity (Poor, Fair, Good)

Asbestos Summary Report

AGI TECHNOLOGIES

Project Name	Ft. Lewis/DEH/Asbestos Surveys
Project Number	14,340.201
Facility	Spokane USARC
Building	R0001
Date	11/10/93

Inspectors	John Ambrose
	Bill Dewey
Project Task Manager	Scott Adamek

HOMOGENEOUS MATERIAL

Assessment Number	SPK-R0001-03
Type	Miscellaneous
Description - General	Cove Base
Description - Detailed	Brown-red cove base with brown mastic
Total Quantity	4000 Square Feet
Friable	No
Air Plenum	No
ACM Status	Negative
Hazard Ranking	
Removal Priority	
AHERA Category	
Emergency?	No
Comments	Less than 1% tremolite asbestos detected in tile samples SPK-R0001-03B-T and -03C-T.

OCCURRENCE		DISTURBANCE POTENTIAL					MATERIAL CONDITION			
				Erosion			Damage			
Location (Functional Space)	Quantity	Accessibility	Contact Frequency	Air	Water	Overall Disturbance Potential	Extent	Type	Quantity	Overall Material Condition
Offices/Classrooms	4000 SF	Low	Low	Low	Low	Low	None Visible			Good

SAMPLING						ANALYSIS RESULTS				
						% Asbestos Present from PLM				
Sample Number	Date	Time	Location: Figure	Grid Coordinate	Height (feet)	Chrysotile	Amosite	Other Asbestos	% Total	Comments
SPK-R0001-03 A,M	11/10/93	1030	6.1b	E - 14	6					ND

Notes: LF = Linear Feet; CF = Cubic Feet; NS = Not Sampled; NA = Not Analyzed; *ACM status confirmed for tile/flooring, mastic, or both

SF = Square Feet; EA = Each; ND = Not Detected; NA(IS) = Not Analyzed due to Insufficient Sample; **ACM status assumed due to ACM tile/flooring, mastic, or both attached to this tile/floor material

Hazard Ranking: 1 (Low Hazard) to 7 (Significant Hazard)

Removal Priority Ranking: 7 (Low Priority) to 1 (Highest Priority)

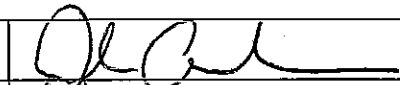
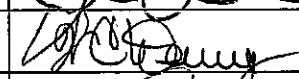
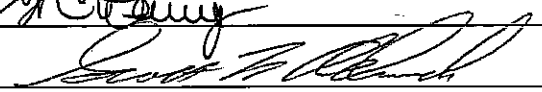
Disturbance Potential - Likelihood that suspected ACM will release fibrous asbestos (Low, Moderate, High)

Material Condition - State of material's structural integrity (Poor, Fair, Good)

Asbestos Summary Report

AGI TECHNOLOGIES

Project Name	Ft. Lewis/DEH/Asbestos Surveys
Project Number	14,340.201
Facility	Spokane USARC
Building	R0001
Date	11/10/93

Inspectors	John Ambrose	
	Bill Dewey	
Project Task Manager	Scott Adamek	

SPK-R0001-03 A-T	11/10/93	1520	6.1b	E - 14	0					ND
SPK-R0001-03 B-M	3/21/94	1330	6.1b	G - 11	0					ND
SPK-R0001-03 B-T	3/21/94	1330	6.1b	G - 11	0					<1% tremolite
SPK-R0001-03 C-M	3/21/94	1339	6.1b	G - 14	0					ND
SPK-R0001-03 C-T	3/21/94	1339	6.1b	G - 14	0					<1% tremolite

Notes:
LF = Linear Feet
SF = Square Feet
CF = Cubic Feet
EA = Each
NS = Not Sampled
ND = Not Detected
NA = Not Analyzed
NA(IS) = Not Analyzed due to Insufficient Sample
*ACM status confirmed for tile/flooring, mastic, or both
**ACM status assumed due to ACM tile/flooring, mastic, or both attached to this tile/floor material

Hazard Ranking: 1 (Low Hazard) to 7 (Significant Hazard)
Removal Priority Ranking: 7 (Low Priority) to 1 (Highest Priority)
Disturbance Potential - Likelihood that suspected ACM will release fibrous asbestos (Low, Moderate, High)
Material Condition - State of material's structural integrity (Poor, Fair, Good)

Asbestos Summary Report

AGI TECHNOLOGIES

Project Name	Ft. Lewis/DEH/Asbestos Surveys
Project Number	14,340.201
Facility	Spokane USARC
Building	R0001
Date	11/10/93

Inspectors	John Ambrose
	Bill Dewey
Project Task Manager	Scott Adamek

HOMOGENEOUS MATERIAL

Assessment Number	SPK-R0001-04
Type	Miscellaneous
Description - General	Cove Base
Description - Detailed	Black cove base with brown mastic
Total Quantity	7000 Linear Feet
Friable	No
Air Plenum	No
ACM Status	Negative
Hazard Ranking	
Removal Priority	
AHERA Category	
Emergency?	No
Comments	

OCCURRENCE		DISTURBANCE POTENTIAL					MATERIAL CONDITION			
				Erosion			Damage			
Location (Functional Space)	Quantity	Accessibility	Contact Frequency	Air	Water	Overall Disturbance Potential	Extent	Type	Quantity	Overall Material Condition
Throughout Hallway/Offices	7000 LF	Low	Low	Low	Low	Low	None Visible			Good

SAMPLING						ANALYSIS RESULTS				
						% Asbestos Present from PLM				
Sample Number	Date	Time	Location			Chrysotile	Amosite	Other Asbestos	% Total	Comments
			Figure	Grid Coordinate	Height (feet)					
SPK-R0001-04-A-H	11/10/93	1610	6.1b	Y - 2	0					NA(IS)

Notes: LF = Linear Feet; CF = Cubic Feet; NS = Not Sampled; NA = Not Analyzed; *ACM status confirmed for tile/flooring, mastic, or both

SF = Square Feet; EA = Each; ND = Not Detected; NA(IS) = Not Analyzed due to Insufficient Sample; **ACM status assumed due to ACM tile/flooring, mastic, or both attached to this tile/floor material

Hazard Ranking: 1 (Low Hazard) to 7 (Significant Hazard)

Removal Priority Ranking: 7 (Low Priority) to 1 (Highest Priority)

Disturbance Potential - Likelihood that suspected ACM will release fibrous asbestos (Low, Moderate, High)

Material Condition - State of material's structural integrity (Poor, Fair, Good)

Asbestos Summary Report

AGI TECHNOLOGIES

Project Name	Ft. Lewis/DEH/Asbestos Surveys
Project Number	14,340.201
Facility	Spokane USARC
Building	R0001
Date	11/10/93

Inspectors	John Ambrose
	Bill Dewey
Project Task Manager	Scott Adamek

SPK-R0001-04 A-T	11/10/93	1510	6.1b	Y - 2	0					ND
SPK-R0001-04 B-M	3/21/94	1247	6.1b	BB - 5	0					ND
SPK-R0001-04 B-T	3/21/94	1247	6.1b	BB - 5	0					ND
SPK-R0001-04 C-M	3/21/94	1312	6.1b	Z - 5	0					ND
SPK-R0001-04 C-T	3/21/94	1312	6.1b	Z - 5	0					ND
SPK-R0001-04 D-M	3/21/94	1235	6.1b	Z - 3	0					ND
SPK-R0001-04 D-T	3/21/94	1235	6.1b	Z - 3	0					ND

Notes:
LF = Linear Feet
SF = Square Feet
CF = Cubic Feet
EA = Each
NS = Not Sampled
ND = Not Detected
NA = Not Analyzed
NA(IS) = Not Analyzed due to Insufficient Sample
*ACM status confirmed for tile/flooring, mastic, or both
**ACM status assumed due to ACM tile/flooring, mastic, or both attached to this tile/floor material

Hazard Ranking: 1 (Low Hazard) to 7 (Significant Hazard)
Removal Priority Ranking: 7 (Low Priority) to 1 (Highest Priority)
Disturbance Potential - Likelihood that suspected ACM will release fibrous asbestos (Low, Moderate, High)
Material Condition - State of material's structural integrity (Poor, Fair, Good)

Asbestos Summary Report

AGI TECHNOLOGIES

Project Name	Ft. Lewis/DEH/Asbestos Surveys
Project Number	14,340.201
Facility	Spokane USARC
Building	R0001
Date	11/10/93

Inspectors	John Ambrose
	Bill Dewey
Project Task Manager	Scott Adamek

HOMOGENEOUS MATERIAL

Assessment Number	SPK-R0001-05
Type	Miscellaneous
Description - General	Cove Base
Description - Detailed	Green cove base with tan mastic
Total Quantity	176 Linear Feet
Friable	No
Air Plenum	No
ACM Status	Negative
Hazard Ranking	
Removal Priority	
AHERA Category	
Emergency?	No
Comments	

OCCURRENCE		DISTURBANCE POTENTIAL					MATERIAL CONDITION			
Location (Functional Space)	Quantity	Accessibility	Contact Frequency	Erosion		Overall Disturbance Potential	Damage			Overall Material Condition
				Air	Water		Extent	Type	Quantity	
Assembly Hall	176 LF	Low	Low	Low	Low	Low	None Visible			Good

SAMPLING						ANALYSIS RESULTS				
Sample Number	Date	Time	Location			% Asbestos Present from PLM				
			Figure	Grid Coordinate	Height (feet)	Chrysotile	Amosite	Other Asbestos	% Total	Comments
SPK-R0001-05 A-M	11/10/93	1445	B.1b	G - 25	6					ND

Notes: LF = Linear Feet; CF = Cubic Feet; NS = Not Sampled; NA = Not Analyzed; *ACM status confirmed for tile/flooring, mastic, or both

SF = Square Feet; EA = Each; ND = Not Detected; NA(IS) = Not Analyzed due to Insufficient Sample; **ACM status assumed due to ACM tile/flooring, mastic, or both attached to this tile/floor material

Hazard Ranking: 1 (Low Hazard) to 7 (Significant Hazard)

Removal Priority Ranking: 7 (Low Priority) to 1 (Highest Priority)

Disturbance Potential - Likelihood that suspected ACM will release fibrous asbestos (Low, Moderate, High)

Material Condition - State of material's structural integrity (Poor, Fair, Good)

Asbestos Summary Report

AGI TECHNOLOGIES

Project Name	Ft. Lewis/DEH/Asbestos Surveys
Project Number	14,340.201
Facility	Spokane USARC
Building	R0001
Date	11/10/93

Inspectors	John Ambrose
	Bill Dewey
Project Task Manager	Scott Adamek

SPK-R0001-05 A-T	11/10/93	1445	6.1b	G - 25	0					ND
SPK-R0001-05 B-M	3/21/94	1200	6.1b	E - 25	0					ND
SPK-R0001-05 B-T	3/21/94	1200	6.1b	E - 25	0					ND
SPK-R0001-05 C-M	3/21/94	1215	6.1b	A - 25	0					ND
SPK-R0001-05 C-T	3/21/94	1215	6.1b	A - 25	0					ND

Notes:
LF = Linear Feet
SF = Square Feet
CF = Cubic Feet
EA = Each
NS = Not Sampled
ND = Not Detected
NA = Not Analyzed
NA(IS) = Not Analyzed due to Insufficient Sample
*ACM status confirmed for tile/flooring, mastic, or both
**ACM status assumed due to ACM tile/flooring, mastic, or both attached to this tile/floor material

Hazard Ranking: 1 (Low Hazard) to 7 (Significant Hazard)
Removal Priority Ranking: 7 (Low Priority) to 1 (Highest Priority)
Disturbance Potential - Likelihood that suspected ACM will release fibrous asbestos (Low, Moderate, High)
Material Condition - State of material's structural integrity (Poor, Fair, Good)

Asbestos Summary Report

AGI TECHNOLOGIES

Project Name	Ft. Lewis/DEH/Asbestos Surveys
Project Number	14,340.201
Facility	Spokane USARC
Building	R0001
Date	11/10/93

Inspectors	John Ambrose	(signature)
	Bill Dewey	(signature)
Project Task Manager	Scott Adamek	(signature)

HOMOGENEOUS MATERIAL

Assessment Number	SPK-R0001-06
Type	Miscellaneous
Description - General	Floor Tile
Description - Detailed	Brown 9" x 9" floor tile (90% brown, 5% red, 5% white) with black mastic
Total Quantity	1350 Square Feet
Friable	No
Air Plenum	No
ACM Status	Confirmed*
Hazard Ranking	1
Removal Priority	7
AHERA Category	
Emergency?	No
Comments	

OCCURRENCE		DISTURBANCE POTENTIAL					MATERIAL CONDITION			
Location (Functional Space)	Quantity	Accessibility	Contact Frequency	Erosion		Overall Disturbance Potential	Damage			Overall Material Condition
				Air	Water		Extent	Type	Quantity	
Offices/Classrooms	1350 SF	High	Moderate	Low	Low	Low	None Visible			Good

SAMPLING						ANALYSIS RESULTS				
Sample Number	Date	Time	Location			% Asbestos Present from PLM				
			Figure	Grid Coordinate	Height (feet)	Chrysotile	Amosite	Other Asbestos	% Total	Comments
[illegible]	11/10/93	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]			[illegible]	

Notes: LF = Linear Feet; SF = Square Feet; CF = Cubic Feet; EA = Each; NS = Not Sampled; ND = Not Detected; NA = Not Analyzed; NA(IS) = Not Analyzed due to Insufficient Sample

*ACM status confirmed for tile/flooring, mastic, or both

**ACM status assumed due to ACM tile/flooring, mastic, or both attached to this tile/floor material

Hazard Ranking: 1 (Low Hazard) to 7 (Significant Hazard)

Removal Priority Ranking: 7 (Low Priority) to 1 (Highest Priority)

Disturbance Potential - Likelihood that suspected ACM will release fibrous asbestos (Low, Moderate, High)

Material Condition - State of material's structural integrity (Poor, Fair, Good)

Asbestos Summary Report

AGI TECHNOLOGIES

Project Name	Ft. Lewis/DEH/Asbestos Surveys
Project Number	14,340.201
Facility	Spokane USARC
Building	R0001
Date	11/10/93

Inspectors	John Ambrose	
	Bill Dewey	
Project Task Manager	Scott Adamek	

SPK-R0001-06 A-T	11/10/93	1330	6.1b	E - 16	0	15%			15%	
SPK-R0001-06 B-M	11/10/93	1340	6.1b	W - 16	0					NA
SPK-R0001-06 B-T	11/10/93	1340	6.1b	W - 16	0					NA
SPK-R0001-06 C-M	11/10/93	1355	6.1b	K - 11	0					NA
SPK-R0001-06 C-T	11/10/93	1355	6.1b	K - 11	0					NA

Notes:
LF = Linear Feet
SF = Square Feet
CF = Cubic Feet
EA = Each
NS = Not Sampled
ND = Not Detected
NA = Not Analyzed
NA(IS) = Not Analyzed due to Insufficient Sample
*ACM status confirmed for tile/flooring, mastic, or both
**ACM status assumed due to ACM tile/flooring, mastic, or both attached to this tile/floor material

Hazard Ranking: 1 (Low Hazard) to 7 (Significant Hazard)
Removal Priority Ranking: 7 (Low Priority) to 1 (Highest Priority)
Disturbance Potential - Likelihood that suspected ACM will release fibrous asbestos (Low, Moderate, High)
Material Condition - State of material's structural integrity (Poor, Fair, Good)

Asbestos Summary Report

AGI TECHNOLOGIES

Project Name	Ft. Lewis/DEH/Asbestos Surveys
Project Number	14,340.201
Facility	Spokane USARC
Building	R0001
Date	11/10/93

Inspectors	John Ambrose	
	Bill Dewey	
Project Task Manager	Scott Adamek	

HOMOGENEOUS MATERIAL

Assessment Number	SPK-R0001-07
Type	Miscellaneous
Description - General	Floor Tile
Description - Detailed	Black 12" x 12" floor tile with black mastic
Total Quantity	220 Square Feet
Friable	No
Air Plenum	No
ACM Status	Confirmed*
Hazard Ranking	1
Removal Priority	7
AHERA Category	
Emergency?	No
Comments	

OCCURRENCE		DISTURBANCE POTENTIAL					MATERIAL CONDITION			
				Erosion			Damage			
Location (Functional Space)	Quantity	Accessibility	Contact Frequency	Air	Water	Overall Disturbance Potential	Extent	Type	Quantity	Overall Material Condition
Medical Area	220 SF	High	Moderate	Low	Low	Low	None Visible			Good

SAMPLING						ANALYSIS RESULTS				
			Location			% Asbestos Present from PLM				
Sample Number	Date	Time	Figure	Grid Coordinate	Height (feet)	Chrysotile	Amosite	Other Asbestos	% Total	Comments
SPK-R0001-07 A,M	11/10/93	1355	6.1b	AA - 1	0	15%			15%	

Notes: LF = Linear Feet; CF = Cubic Feet; NS = Not Sampled; NA = Not Analyzed; SF = Square Feet; EA = Each; ND = Not Detected; NA(IS) = Not Analyzed due to Insufficient Sample

*ACM status confirmed for tile/flooring, mastic, or both

**ACM status assumed due to ACM tile/flooring, mastic, or both attached to this tile/floor material

Hazard Ranking: 1 (Low Hazard) to 7 (Significant Hazard)

Removal Priority Ranking: 7 (Low Priority) to 1 (Highest Priority)

Disturbance Potential - Likelihood that suspected ACM will release fibrous asbestos (Low, Moderate, High)

Material Condition - State of material's structural integrity (Poor, Fair, Good)

Asbestos Summary Report

AGI TECHNOLOGIES

Project Name	Ft. Lewis/DEH/Asbestos Surveys
Project Number	14,340.201
Facility	Spokane USARC
Building	R0001
Date	11/10/93

Inspectors	John Ambrose	
	Bill Dewey	
Project Task Manager	Scott Adamek	

SPK-R0001-07 A-T	11/10/93	1305	6.1b	AA - 1	0	5%			5%	
SPK-R0001-07 B-M	11/10/93	1310	6.1b	Y - 1	0					NA
SPK-R0001-07 B-T	11/10/93	1310	6.1b	Y - 1	0					NA

Notes: LF = Linear Feet; CF = Cubic Feet; NS = Not Sampled; NA = Not Analyzed; *ACM status confirmed for tile/flooring, mastic, or both

SF = Square Feet; EA = Each; ND = Not Detected; NA(IS) = Not Analyzed due to Insufficient Sample; **ACM status assumed due to ACM tile/flooring, mastic, or both attached to this tile/floor material

Hazard Ranking: 1 (Low Hazard) to 7 (Significant Hazard)

Removal Priority Ranking: 7 (Low Priority) to 1 (Highest Priority)

Disturbance Potential - Likelihood that suspected ACM will release fibrous asbestos (Low, Moderate, High)

Material Condition - State of material's structural integrity (Poor, Fair, Good)

Asbestos Summary Report

AGI TECHNOLOGIES

Project Name	Ft. Lewis/DEH/Asbestos Surveys
Project Number	14,340.201
Facility	Spokane USARC
Building	R0001
Date	11/10/93

Inspectors	John Ambrose	
	Bill Dewey	
Project Task Manager	Scott Adamek	

HOMOGENEOUS MATERIAL

Assessment Number	SPK-R0001-08
Type	Miscellaneous
Description - General	Floor Tile
Description - Detailed	Off-White 12" x 12" floor tile (90% off-white, 10% brown) with black mastic
Total Quantity	5300 Square Feet
Friable	No
Air Plenum	No
ACM Status	Confirmed*
Hazard Ranking	1
Removal Priority	7
AHERA Category	
Emergency?	No
Comments	

OCCURRENCE		DISTURBANCE POTENTIAL					MATERIAL CONDITION			
				Erosion			Damage			
Location (Functional Space)	Quantity	Accessibility	Contact Frequency	Air	Water	Overall Disturbance Potential	Extent	Type	Quantity	Overall Material Condition
Offices/Medical	5300 SF	High	Moderate	Low	Low	Low	None Visible			Good

SAMPLING						ANALYSIS RESULTS				
						% Asbestos Present from PLM				
Sample Number	Date	Time	Location			Chrysotile	Amosite	Other Asbestos	% Total	Comments
			Figure	Grid Coordinate	Height (feet)					
SPK-R0001-08-A-M	11/10/93	1450	4.1b	P - 16	0	15%			15%	

Notes: LF = Linear Feet; CF = Cubic Feet; NS = Not Sampled; NA = Not Analyzed; *ACM status confirmed for tile/flooring, mastic, or both

SF = Square Feet; EA = Each; ND = Not Detected; NA(IS) = Not Analyzed due to Insufficient Sample; **ACM status assumed due to ACM tile/flooring, mastic, or both attached to this tile/floor material

Hazard Ranking: 1 (Low Hazard) to 7 (Significant Hazard)

Removal Priority Ranking: 7 (Low Priority) to 1 (Highest Priority)

Disturbance Potential - Likelihood that suspected ACM will release fibrous asbestos (Low, Moderate, High)

Material Condition - State of material's structural integrity (Poor, Fair, Good)

Asbestos Summary Report

AGI TECHNOLOGIES

Project Name	Ft. Lewis/DEH/Asbestos Surveys
Project Number	14,340.201
Facility	Spokane USARC
Building	R0001
Date	11/10/93

Inspectors	John Ambrose	
	Bill Dewey	
Project Task Manager	Scott Adamek	

SPK-R0001-08 A-T	11/10/93	1450	6.1b	P - 16	0	3%			3%	
SPK-R0001-08 B-M	11/10/93	1455	6.1b	BB - 3	0					NA
SPK-R0001-08 B-T	11/10/93	1455	6.1b	BB - 3	0					NA
SPK-R0001-08 C-M	11/10/93	1458	6.1b	P - 1	0					NA
SPK-R0001-08 C-T	11/10/93	1458	6.1b	P - 1	0					NA

Notes:
LF = Linear Feet
SF = Square Feet
CF = Cubic Feet
EA = Each
NS = Not Sampled
ND = Not Detected
NA = Not Analyzed
NA(IS) = Not Analyzed due to Insufficient Sample
*ACM status confirmed for tile/flooring, mastic, or both
**ACM status assumed due to ACM tile/flooring, mastic, or both attached to this tile/floor material

Hazard Ranking: 1 (Low Hazard) to 7 (Significant Hazard)
Removal Priority Ranking: 7 (Low Priority) to 1 (Highest Priority)
Disturbance Potential - Likelihood that suspected ACM will release fibrous asbestos (Low, Moderate, High)
Material Condition - State of material's structural integrity (Poor, Fair, Good)

Asbestos Summary Report

AGI TECHNOLOGIES

Project Name	Ft. Lewis/DEH/Asbestos Surveys
Project Number	14,340.201
Facility	Spokane USARC
Building	R0001
Date	11/10/93

Inspectors	John Ambrose	
	Bill Dewey	
Project Task Manager	Scott Adamek	

HOMOGENEOUS MATERIAL

Assessment Number	SPK-R0001-09
Type	Miscellaneous
Description - General	Floor Soundproofing
Description - Detailed	Oak floor over soundproofing material
Total Quantity	4475 Square Feet
Friable	No
Air Plenum	No
ACM Status	Assumed
Hazard Ranking	1
Removal Priority	7
AHERA Category	
Emergency?	No
Comments	Possible ACM between flooring and plywood used for soundproofing.

OCCURRENCE		DISTURBANCE POTENTIAL					MATERIAL CONDITION			
Location (Functional Space)	Quantity	Accessibility	Contact Frequency	Erosion		Overall Disturbance Potential	Damage			Overall Material Condition
				Air	Water		Extent	Type	Quantity	
Second Floor	4475 SF	High	Moderate	Low	Low	Low	None Visible			Good

SAMPLING						ANALYTICAL RESULTS				
Sample Number	Date	Time	Location			% Asbestos Present from PLM				
			Figure	Grid Coordinate	Height (feet)	Chrysotile	Amosite	Other Asbestos	% Total	Comments
SPK-R0001-09										NS

Notes: LF = Linear Feet; CF = Cubic Feet; NS = Not Sampled; NA = Not Analyzed; *ACM status confirmed for tile/flooring, mastic, or both

SF = Square Feet; EA = Each; ND = Not Detected; NA(IS) = Not Analyzed due to Insufficient Sample; **ACM status assumed due to ACM tile/flooring, mastic, or both attached to this tile/floor material

Hazard Ranking: 1 (Low Hazard) to 7 (Significant Hazard)

Removal Priority Ranking: 7 (Low Priority) to 1 (Highest Priority)

Disturbance Potential - Likelihood that suspected ACM will release fibrous asbestos (Low, Moderate, High)

Material Condition - State of material's structural integrity (Poor, Fair, Good)

Asbestos Summary Report

AGI TECHNOLOGIES

Project Name	Ft. Lewis/DEH/Asbestos Surveys
Project Number	14,340.201
Facility	Spokane USARC
Building	R0001
Date	11/10/93

Inspectors	John Ambrose	
	Bill Dewey	
Project Task Manager	Scott Adamek	

HOMOGENEOUS MATERIAL

Assessment Number	SPK-R0001-10
Type	Miscellaneous
Description - General	Gasket
Description - Detailed	Dark gray gasket material on boiler facing
Total Quantity	2 Linear Feet
Friable	No
Air Plenum	No
ACM Status	Assumed
Hazard Ranking	1
Removal Priority	7
AHERA Category	
Emergency?	No
Comments	Gasket material should be tested if boiler is taken off line for repairs.

OCCURRENCE		DISTURBANCE POTENTIAL					MATERIAL CONDITION			
				Erosion			Damage			
Location (Functional Space)	Quantity	Accessibility	Contact Frequency	Air	Water	Overall Disturbance Potential	Extent	Type	Quantity	Overall Material Condition
Boiler Room	2 LF	Low	Low	Low	Low	Low	None Visible			Good

SAMPLING						ANALYTICAL RESULTS				
						% Asbestos Present from PLM				
Sample Number	Date	Time	Location	Grid Coordinate	Height (feet)	Chrysotile	Amosite	Other Asbestos	% Total	Comments
SPK-R0001-10										NS

Notes: LF = Linear Feet; CF = Cubic Feet; NS = Not Sampled; NA = Not Analyzed; *ACM status confirmed for tile/flooring, mastic, or both

SF = Square Feet; EA = Each; ND = Not Detected; NA(IS) = Not Analyzed due to Insufficient Sample; **ACM status assumed due to ACM tile/flooring, mastic, or both attached to this tile/floor material

Hazard Ranking: 1 (Low Hazard) to 7 (Significant Hazard)

Removal Priority Ranking: 7 (Low Priority) to 1 (Highest Priority)

Disturbance Potential - Likelihood that suspected ACM will release fibrous asbestos (Low, Moderate, High)

Material Condition - State of material's structural integrity (Poor, Fair, Good)

Asbestos Summary Report

AGI TECHNOLOGIES

Project Name	Ft. Lewis/DEH/Asbestos Surveys
Project Number	14,340.201
Facility	Spokane USARC
Building	R0001
Date	11/10/93

Inspectors	John Ambrose
	Bill Dewey
Project Task Manager	Scott Adamek

HOMOGENEOUS MATERIAL

Assessment Number	SPK-R0001-11
Type	Miscellaneous
Description - General	Electrical Insulation
Description - Detailed	Electrical insulation in old switchboxes
Total Quantity	2 Each
Friable	No
Air Plenum	No
ACM Status	Assumed
Hazard Ranking	1
Removal Priority	7
AHERA Category	
Emergency?	No
Comments	Distribution panelboard on south wall of boiler room.

OCCURRENCE		DISTURBANCE POTENTIAL					MATERIAL CONDITION			
				Erosion			Damage			
Location (Functional Space)	Quantity	Accessibility	Contact Frequency	Air	Water	Overall Disturbance Potential	Extent	Type	Quantity	Overall Material Condition
Boiler Room	2 EA	Low	Low	Low	Low	Low	None Visible			Good

SAMPLING						ANALYTICAL RESULTS				
						% Asbestos Present from PLM				
Sample Number	Date	Time	Figure	Grid Coordinate	Height (feet)	Chrysotile	Amosite	Other Asbestos	% Total	Comments
SPK-R0001-11										NS

Notes: LF = Linear Feet; CF = Cubic Feet; NS = Not Sampled; NA = Not Analyzed; *ACM status confirmed for tile/flooring, mastic, or both

SF = Square Feet; EA = Each; ND = Not Detected; NA(IS) = Not Analyzed due to Insufficient Sample; **ACM status assumed due to ACM tile/flooring, mastic, or both attached to this tile/floor material

Hazard Ranking: 1 (Low Hazard) to 7 (Significant Hazard)

Removal Priority Ranking: 7 (Low Priority) to 1 (Highest Priority)

Disturbance Potential - Likelihood that suspected ACM will release fibrous asbestos (Low, Moderate, High)

Material Condition - State of material's structural integrity (Poor, Fair, Good)

Asbestos Summary Report

AGI TECHNOLOGIES

Project Name	Ft. Lewis/DEH/Asbestos Surveys
Project Number	14,340.201
Facility	Spokane USARC
Building	R0001
Date	11/10/93

Inspectors	John Ambrose
	Bill Dewey
Project Task Manager	Scott Adamek

HOMOGENEOUS MATERIAL

Assessment Number	SPK-R0001-12
Type	Thermal System Insulation
Description - General	Thermal Pipe Insulation
Description - Detailed	Pipe insulation on steam heating system in assembly hall
Total Quantity	362 Linear Feet
Friable	Yes
Air Plenum	No
ACM Status	Assumed
Hazard Ranking	7
Removal Priority	1
AHERA Category	1
Emergency?	Yes
Comments	Facility manager notified of problem; damage in 3 locations. Approximately 362 linear feet (air cell) & 30 mudded fittings.

OCCURRENCE		DISTURBANCE POTENTIAL					MATERIAL CONDITION			
				Erosion			Damage			
Location (Functional Space)	Quantity	Accessibility	Contact Frequency	Air	Water	Overall Disturbance Potential	Extent	Type	Quantity	Overall Material Condition
Assembly Hall	362 LF	Low	Low	Low	Low	Low	Localized	Physical	6 LF	Poor

SAMPLING						ANALYSIS RESULTS				
						% Asbestos Present from PLM				
Sample Number	Date	Time	Figure	Grid Coordinate	Height (Feet)	Chrysotile	Amosite	Other Asbestos	% Total	Comments
SPK-R0001-12										NS

Notes: LF = Linear Feet; CF = Cubic Feet; NS = Not Sampled; NA = Not Analyzed; *ACM status confirmed for tile/flooring, mastic, or both

SF = Square Feet; EA = Each; ND = Not Detected; NA(IS) = Not Analyzed due to Insufficient Sample; **ACM status assumed due to ACM tile/flooring, mastic, or both attached to this tile/floor material

Hazard Ranking: 1 (Low Hazard) to 7 (Significant Hazard)

Removal Priority Ranking: 7 (Low Priority) to 1 (Highest Priority)

Disturbance Potential - Likelihood that suspected ACM will release fibrous asbestos (Low, Moderate, High)

Material Condition - State of material's structural integrity (Poor, Fair, Good)

Asbestos Summary Report

AGI TECHNOLOGIES

Project Name	Ft. Lewis/DEH/Asbestos Surveys
Project Number	14,340.201
Facility	Spokane USARC
Building	R0001
Date	11/10/93

Inspectors	John Ambrose
	Bill Dewey
Project Task Manager	Scott Adamek

HOMOGENEOUS MATERIAL

Assessment Number	SPK-R0001-13
Type	Miscellaneous
Description - General	Metal Doors
Description - Detailed	Insulated metal doors
Total Quantity	8 Each
Friable	No
Air Plenum	No
ACM Status	Assumed
Hazard Ranking	1
Removal Priority	7
AHERA Category	
Emergency?	No
Comments	

OCCURRENCE		DISTURBANCE POTENTIAL					MATERIAL CONDITION			
				Erosion			Damage			
Location (Functional Space)	Quantity	Accessibility	Contact Frequency	Air	Water	Overall Disturbance Potential	Extent	Type	Quantity	Overall Material Condition
Throughout Building	8 EA	Low	Low	Low	Low	Low	None Visible			Good

SAMPLING						ANALYSIS RESULTS				
						% Asbestos Present from PLM				
Sample Number	Date	Time	Location			Chrysotile	Amosite	Other Asbestos	% Total	Comments
			Figure	Grid Coord	Height (feet)					
SPK-R0001-13										NS

Notes: LF = Linear Feet; CF = Cubic Feet; NS = Not Sampled; NA = Not Analyzed; *ACM status confirmed for tile/flooring, mastic, or both

SF = Square Feet; EA = Each; ND = Not Detected; NA(IS) = Not Analyzed due to Insufficient Sample; **ACM status assumed due to ACM tile/flooring, mastic, or both attached to this tile/floor material

Hazard Ranking: 1 (Low Hazard) to 7 (Significant Hazard)

Removal Priority Ranking: 7 (Low Priority) to 1 (Highest Priority)

Disturbance Potential - Likelihood that suspected ACM will release fibrous asbestos (Low, Moderate, High)

Material Condition - State of material's structural integrity (Poor, Fair, Good)

6.3 BUILDING R0002

Facility: Spokane USARC - Mann Hall
Inspection Date: 10 November 1993
Inspectors: John Ambrose and Bill Dewey
Survey Contractors: AGI

6.3.1 Building Description and Use

Building R0002 is a one-story vehicle maintenance facility with offices and storage rooms.

6.3.2 Survey Results

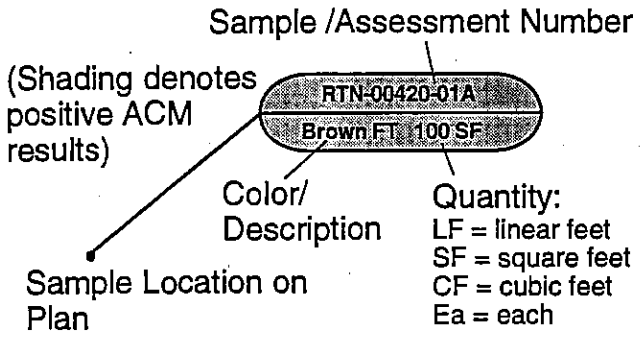
The only suspected ACMs found during the inspection were insulated metal doors.

Insulated Metal Doors: Insulated metal doors (eight total) are assumed from our observations to contain ACM (assessment SPK-R0002-01).

Wallboard/Lath and Plaster Walls: Wood or metal frame walls and ceilings, covered by either wallboard or lath and plaster, were inspected, and no suspected ACMs were visible. Wall materials such as wallboard, joint compound, and plaster, however, may contain asbestos, and walls may have been repaired or renovated in unidentified areas using ACMs. It is therefore impracticable to obtain representative samples of these materials even by sampling all individual walls and ceilings, which was not done for this survey. Because confirmatory samples were not collected, all individual walls and ceilings should be considered as potentially containing ACMs. Prior to any future repair, renovation, demolition, or other maintenance activities involving any wall or ceiling, fully penetrating core samples of wall/ceiling materials must be collected and analyzed to protect human health and the environment.

Roof: The roof and associated HVAC equipment were inspected, and no suspected ACMs were visible. Because destructive sampling may cause irreparable roof damage, confirmatory samples of all roofing materials were not collected and the roof should be considered as potentially containing ACMs (particularly in tar and roofing cement). Prior to any future repair, renovation, demolition, or other maintenance activities involving the roof, fully penetrating core samples of roofing materials must be collected and analyzed to protect human health and the environment.

Sample Location Key



Legend
Extent of Asbestos-Containing Material (ACM)

- ACM - Floor/Floor-Mounted Equipment
- ACM - Ceiling/Ceiling-Mounted Equipment
- ACM - Floor & Ceiling
- ACM - Sprayed-on Ceiling
- ACM - Wall
- ACM - Pipe Insulation (Horizontal Run)
- ACM - Pipe Insulation (Vertical Riser)
- ACM-Assumed Insulated Metal Door

Homogeneous Material Code

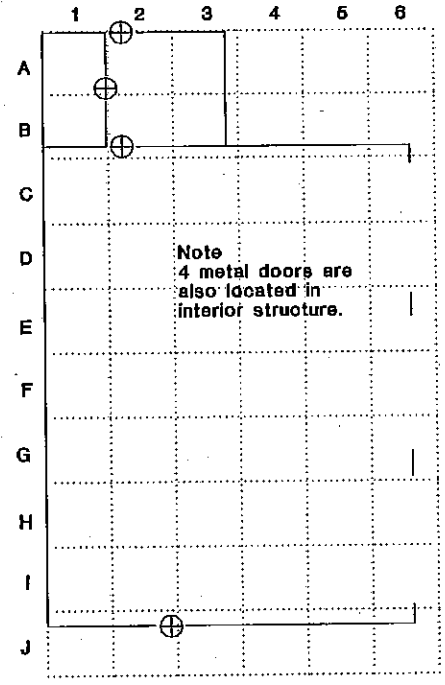
AC	Acoustical Material
BI	Boiler Insulation
CA	Caulking/Putty
CB	Cement Asbestos Board (Transite)
CP	Cement Asbestos Pipe
CT	Ceiling Tile
CV	Cove Base
DP	Duct Paper
ET	Exterior Siding Tile
EW	Electrical Wire/Switch Insulation
FC	Flexible HVAC Connector
FP	Fireproofing
FS	Floor Soundproofing
FT	Floor Tile
GA	Gaskets
IN	Spray-in Wall Insulation
JC	Joint Compound
LN	Linoleum (Vinyl Sheet) Flooring
MA	Mastic
MI	Other Miscellaneous Material
MT	Mortar
PA	Paint
PC	Popcorn Ceiling Material
PF	Pipe Fitting Insulation
PI	Pipe Insulation
PL	Plaster
RM	Roofing Material
SM	Other Surfacing Material
TI	Tank Insulation
TP	Tar Paper
WB	Wallboard
WP	Window Putty/Glazing

AGI TECHNOLOGIES

Asbestos Survey Classification System

Fort Lewis DEH/Asbestos Surveys
Washington and Oregon

PROJECT NO.	DRAWN	DATE	APPROVED	REVISED	DATE
fl201leg.PM5	14,340.201	KM	13 April 94		



SPK-R0002-01
Metal Doors 8 Ea

N

0 15

Reference: Directorate of Engineering and Housing, Ft. Lewis, WA, Custodial Services Plan

AGI TECHNOLOGIES

ACM and Sample Locations for Building R0002

Fort Lewis DEH/Asbestos Surveys
Spokane USARC
Spokane, Washington

FIGURE 6.2

PROJECT NO.	DRAWN	DATE	APPROVED	REVISED	DATE
FTLEWBDR.PM5	14,340.201	KM	13 April 94	SHA	

Asbestos Summary Report

AGI TECHNOLOGIES

Project Name	Ft. Lewis/DEH/Asbestos Surveys
Project Number	14,340.201
Facility	Spokane USARC
Building	R0002
Date	11/10/93

Inspectors	John Ambrose
	Bill Dewey
Project Task Manager	Scott Adamek

HOMOGENEOUS MATERIAL

Assessment Number	SPK-R0002-01
Type	Miscellaneous
Description - General	Metal Doors
Description - Detailed	Insulated metal doors
Total Quantity	8 Each
Friable	No
Air Plenum	No
ACM Status	Assumed
Hazard Ranking	1
Removal Priority	7
AHERA Category	
Emergency?	No
Comments	

OCCURRENCE		DISTURBANCE POTENTIAL					MATERIAL CONDITION			
Location (Functional Space)	Quantity	Accessibility	Contact Frequency	Erosion		Overall Disturbance Potential	Damage			Overall Material Condition
				Air	Water		Extent	Type	Quantity	
Throughout Building	8 EA	Low	Low	Low	Low	Low	None Visible			Good

SAMPLING						ANALYSIS RESULTS				
Sample Number	Date	Time	Location			% Asbestos Present from PLM				
			Figure	Grid Coordinate	Height (feet)	Chrysotile	Amosite	Other Asbestos	% Total	Comments
SPK-R0002-01										NE

Notes: LF = Linear Feet; CF = Cubic Feet; NS = Not Sampled; NA = Not Analyzed; *ACM status confirmed for tile/flooring, mastic, or both

SF = Square Feet; EA = Each; ND = Not Detected; NA(IS) = Not Analyzed due to Insufficient Sample; **ACM status assumed due to ACM tile/flooring, mastic, or both attached to this tile/floor material

Hazard Ranking: 1 (Low Hazard) to 7 (Significant Hazard)

Removal Priority Ranking: 7 (Low Priority) to 1 (Highest Priority)

Disturbance Potential - Likelihood that suspected ACM will release fibrous asbestos (Low, Moderate, High)

Material Condition - State of material's structural integrity (Poor, Fair, Good)

APPENDIX A

Analytical Results

Amendment

Reference: Analytical Technologies, Inc.
Bulk Asbestos Sample Analysis Report
Dated 24 Nov 93
Accession 311467

The following report prepared by Analytical Technologies, Inc. and attached chain-of custody form for bulk asbestos samples collected at the Spokane USARC (Mann Hall) indicate an incorrect sample date. The correct date on which samples were collected, which is used in the asbestos survey report, is shown below:

Incorrect Sample Date	Correct Sample Date
12-Nov-93	10-Nov-93

Analytical Technologies, Inc. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

RECEIVED
NOV 29 1993
APPLIED GEOTECHNOLOGY INC.

SIGNATURE PAGE

Reviewed by: _____
ATI Project Manager

Client:	APPLIED GEOTECHNOLOGY INC BELLEVUE, WASHINGTON
Project Name:	FORT LEWIS DEH/ASBESTOS
Project Number:	14340.201
Project Location:	SPOK MAIN HALL
Accession Number:	311467
Project Manager:	S.J. PENOYAR
Sampled By:	J. AMBROSE

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Date 24-Nov-93

Departmental Approval

Accession:	311467
Client:	APPLIED GEOTECHNOLOGY INC
Project Number:	14340.201
Project Name:	FORT LEWIS DEH/ASBESTOS
Project Location:	SPOK MAIN HALL
Department:	INDUSTRIAL HYGIENE
Supervisor:	John D. Meade

This data package has been reviewed and approved by:

A. G. Woodward Date: 11-24-93

Analyzed by: Cathy M Cook

Accession: 311467
Client: APPLIED GEOTECHNOLOGY INC
Project Number: 14340.201
Project Name: FORT LEWIS DEH/ASBESTOS
Project Location: SPOK MAIN HALL
Test: TOTAL FIBROUS ASBESTOS (%)
Matrix: BULK

Lab Id	Sample Date	Analysis Date	Client Sample Id
001	12-NOV-93 1410	19-NOV-93	SPK R0001-01A
002	12-NOV-93 1415	19-NOV-93	SPK R0001-01B
003	12-NOV-93 1420	19-NOV-93	SPK R0001-01C
004	12-NOV-93 1425	19-NOV-93	SPK R0001-01D
005	12-NOV-93 1430	19-NOV-93	SPK R0001-01E

Components	Laboratory Id: 001	002	003	004	005
TOTAL FIBROUS ASBESTOS (%)	ND	ND	ND	ND	ND
CELLULOSE FIBERS (%)	1	1	1	1	1
GLASS FIBERS (%)	90	90	90	90	90
BINDER (%)	8	8	8	8	8
PAINT (%)	1	1	1	1	1
UNIFORMITY	L	L	L	L	L
SAMPLE COLOR.	W	W	W	W	W
SAMPLE COLOR..	W	W	W	W	W

Accession: 311467
Client: APPLIED GEOTECHNOLOGY INC
Project Number: 14340.201
Project Name: FORT LEWIS DEH/ASBESTOS
Project Location: SPOK MAIN HALL
Test: TOTAL FIBROUS ASBESTOS (%)
Matrix: BULK

Lab Id	Sample Date	Analysis Date	Client Sample Id
006	12-NOV-93 1430	19-NOV-93	SPK R0001-02A-T
007	12-NOV-93 1430	19-NOV-93	SPK R0001-02A-M
008	12-NOV-93 1435	19-NOV-93	SPK R0001-02B-T
009	12-NOV-93 1435	19-NOV-93	SPK R0001-02B-M
010	12-NOV-93 1440	19-NOV-93	SPK R0001-02C-T

Components	Laboratory Id: 006	007	008	009	010
CHRYSOTILE ASBESTOS (%)		<1			
TOTAL FIBROUS ASBESTOS (%)	ND	<1	ND	ND	ND
TILE COMPONENTS (%)	100		100		100
MASTIC (%)		99		100	
UNIFORMITY	U	L	U	U	U
SAMPLE COLOR.	T	T	T	T	T
SAMPLE COLOR..		B			

Remarks:

007 Asbestos is only located in traces of black mastic adhering to tan mastic.

Accession: 311467
Client: APPLIED GEOTECHNOLOGY INC
Project Number: 14340.201
Project Name: FORT LEWIS DEH/ASBESTOS
Project Location: SPOK MAIN HALL
Test: TOTAL FIBROUS ASBESTOS (%)
Matrix: BULK

Lab Id	Sample Date	Analysis Date	Client Sample Id
011	12-NOV-93 1440	19-NOV-93	SPK R0001-02C-M
012	12-NOV-93 1520	19-NOV-93	SPK R0001-03A-T
013	12-NOV-93 1520	19-NOV-93	SPK R0001-03A-M
014	12-NOV-93 1510	19-NOV-93	SPK R0001-04A-T
015	12-NOV-93 1510	19-NOV-93	SPK R0001-04A-M

Components	Laboratory Id: 011	012	013	014	015
TOTAL FIBROUS ASBESTOS (%)	ND	ND	ND	ND	ND
MASTIC (%)	100		100		
RUBBEROID (%)		100		100	
SAMPLE COLOR.	T	M	T	B	
UNIFORMITY	U	U	U	U	

Remarks:

015 Sample SPK R0001-004A-M is not present in sufficient quantity for analysis.

Accession: 311467
Client: APPLIED GEOTECHNOLOGY INC
Project Number: 14340.201
Project Name: FORT LEWIS DEH/ASBESTOS
Project Location: SPOK MAIN HALL
Test: TOTAL FIBROUS ASBESTOS (%)
Matrix: BULK

Lab Id	Sample Date	Analysis Date	Client Sample Id
016	12-NOV-93 1445	19-NOV-93	SPK R0001-05A-T
017	12-NOV-93 1445	19-NOV-93	SPK R0001-05A-M
018	12-NOV-93 1330	19-NOV-93	SPK R0001-06A-T
019	12-NOV-93 1330	19-NOV-93	SPK R0001-06A-M
020	12-NOV-93 1340	19-NOV-93	SPK R0001-06B-T

Components	Laboratory Id: 016	017	018	019	020
CHRYSOTILE ASBESTOS (%)			15	20	
TOTAL FIBROUS ASBESTOS (%)	ND	ND	15	20	ND
RUBBEROID (%)	100				
MASTIC (%)		100		80	
TILE COMPONENTS (%)			85		
UNIFORMITY	U	U	U	U	
SAMPLE COLOR.	G	T	BR	B	

Remarks:

020 Client requested no analysis.

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 311467
Client: APPLIED GEOTECHNOLOGY INC
Project Number: 14340.201
Project Name: FORT LEWIS DEH/ASBESTOS
Project Location: SPOK MAIN HALL
Test: TOTAL FIBROUS ASBESTOS (%)
Matrix: BULK

Lab Id	Sample Date	Analysis Date	Client Sample Id
021	12-NOV-93 1340	19-NOV-93	SPK R0001-06B-M
022	12-NOV-93 1355	19-NOV-93	SPK R0001-06C-T
023	12-NOV-93 1355	19-NOV-93	SPK R0001-06C-M
024	12-NOV-93 1305	19-NOV-93	SPK R0001-07A-T
025	12-NOV-93 1305	19-NOV-93	SPK R0001-07A-M

Components	Laboratory Id: 021	022	023	024	025
CHRYSOTILE ASBESTOS (%)				5	15
TOTAL FIBROUS ASBESTOS (%)	ND	ND	ND	5	15
TILE COMPONENTS (%)				95	
MASTIC (%)					85
SAMPLE COLOR.				B	B
UNIFORMITY				U	U

Remarks:

021 Client requested no analysis.
022 Client requested no analysis.
023 Client requested no analysis.

Accession: 311467
Client: APPLIED GEOTECHNOLOGY INC
Project Number: 14340.201
Project Name: FORT LEWIS DEH/ASBESTOS
Project Location: SPOK MAIN HALL
Test: TOTAL FIBROUS ASBESTOS (%)
Matrix: BULK

Lab Id	Sample Date	Analysis Date	Client Sample Id
026	12-NOV-93 1310	19-NOV-93	SPK R0001-07B-T
027	12-NOV-93 1310	19-NOV-93	SPK R0001-07B-M
028	12-NOV-93 1450	19-NOV-93	SPK R0001-08A-T
029	12-NOV-93 1450	19-NOV-93	SPK R0001-08A-M
030	12-NOV-93 1455	19-NOV-93	SPK R0001-08B-T

Components	Laboratory Id: 026	027	028	029	030
CHRYSOTILE ASBESTOS (%)			3	15	
TOTAL FIBROUS ASBESTOS (%)	ND	ND	3	15	ND
TILE COMPONENTS (%)			97		
MASTIC (%)				85	
UNIFORMITY			U	U	
SAMPLE COLOR.			T	B	

Remarks:

026 Client requested no analysis.
027 Client requested no analysis.
030 Client requested no analysis.

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 311467
Client: APPLIED GEOTECHNOLOGY INC
Project Number: 14340.201
Project Name: FORT LEWIS DEH/ASBESTOS
Project Location: SPOK MAIN HALL
Test: TOTAL FIBROUS ASBESTOS (%)
Matrix: BULK

Lab Id	Sample Date	Analysis Date	Client Sample Id
031	12-NOV-93 1455	19-NOV-93	SPK R0001-08B-M
032	12-NOV-93 1458	19-NOV-93	SPK R0001-08C-T
033	12-NOV-93 1458	19-NOV-93	SPK R0001-08C-M

Components	Laboratory Id: 031	032	033
TOTAL FIBROUS ASBESTOS (%)	ND	ND	ND

Remarks:

031 Client requested no analysis.
032 Client requested no analysis.
033 Client requested no analysis.

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Asbestos Supplemental Information Page

SAMPLE TYPE: BULK
Analyses are performed using polarized light microscopy and dispersion staining according to the U.S. EPA's Interim Method for the Determination of Asbestos in Bulk Insulation Samples (EPA-600/M4-82-020, 1982). Volumetric percentages are determined by visual estimation. Sample colors determined by the analyst may be different from those observed by the sample collector at the collection site, due to differences in lighting.

LEGEND:

NS = Not Submitted ND = Not Detected
U = Uniform L = Layered N = Nonuniform nonlayered
B = Black B = Beige BL = Blue BR = Brown CO = Copper G = Gray
GL = Gold Gr = Green I = Ivory O = Orange P = Pink R = Red SL = Silver T = Tan V = Violet W = White Y = Yellow C = Clear OP = Opaque
S = Streaked SP = Spotted M = Multicolored UA = Unable to Ascertain
D = Dirty or discolored

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Geology & Hydrogeology

311467

CHAIN-OF-[illegible]STODY

Date 11/12/93 Page 1 of 5

PROJECT INFORMATION

Project Manager: SAEWOYAR
Project Name: FORT LEWIS DEH/ASBESTOS
Project Number: 4340.201
Site Location: _____ Sampled By: JMA

DISPOSAL INFORMATION

(X) Lab Disposal (return if not indicated)
Disposal Method: _____
Disposed by: _____ Disposal Date: _____

QC INFORMATION (check one)

☐SW-846 ☐CLP ☐Screening ☐AGI Std. ☐Special

Laboratory Number:

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID
SPK-Room 1 - 01A	11/12	1410	ASBESTOS	
" " - 01B		1415		
" " - 01C		1420		
" " - 01D		1425		
" " - 01E		1430		
" " - 02A-T		1430		
" " - 11A-M		"		
" " - BT		1435		

PETROLEUM HYDROCARBONS	ORGANIC COMPOUNDS	PESTS/PCB's	METALS	LEACHING TESTS	OTHER	
TPH-ID State:	8010 Halogenated VOCs	8080 OC Pest/PCBs	Selected metals: list	TCLP - Volatiles (ZHE)		NUMBER OF CONTAINERS
TPH-G State:	8020 Aromatic VOCs	8080M PCBs only	Total Lead (Wa)	TCLP - Semivolatiles		
TPH-D State:	8020M - BETX only	8140 OP Pesticides	Organic Lead (Ca)	TCLP - Pesticides		
TPH Special Instructions	8240 GCMS Volatiles	8150 OC Herbicides	TCL Metals (23)	TCLP - Metals		
418.1 State:	8270 GCMS Semivol.	DWS - Herb/pest	Priority Poll. Metals (13)			
8015M	8310 HPLC PAHs		DWS - Metals			
	8040 Phenols		MFSP - Metals (Wa)			
	DWS - Volatiles and Semivol.					
						1
						1
						1
						1
						1
						1
						1
						1

LAB INFORMATION

Lab Name: ATL
Lab Address:
Via:

SAMPLE RECEIPT

Total Number of Containers: 7
Chain of Custody Seals: Y/N/NA
Intact?: Y/N/NA
Received in Good Condition/Cold:

Turn Around Time: (X) Standard ☐24 hr. ☐48 hr. ☐72 hr. ☐1 wk.

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH DATA

Special Instructions:

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: [signature] Time: 1200	Signature: Time:	Signature: Time:
Printed Name: J. AMBROSE Date: 11/12/93	Printed Name: Date:	Printed Name: Date:
Company: AGI	Company:	Company:
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY: 3.**
Signature: [signature] Time: 1630	Signature: Time:	Signature: Time:
Printed Name: Date: 11/16	Printed Name: Date:	Printed Name: Date:
Company: ATL	Company:	Company:

AGI OFFICES: Bellevue: (206) 453-8383 Tacoma: (206) 383-4380
Portland: (503) 222-2820 Pleasanton: (415) 460-5495

DISTRIBUTION: White, Canary to Analytical Laboratory; Pink to AGI Project Files; Gold to AGI Disposal Files

Rev. 4/92

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Geotechnical Engineering
Geology & Hydrogeology

311467
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CHAIN-OF-CUSTODY

Date 11/17/93 Page 2 of 5

PROJECT INFORMATION

Project Manager: S. PENOYAR
Project Name: ~~14340.201~~ FUTCHINS DE
Project Number: 14340 201
Site Location: SPOK. MAIN HAL Sampled By: JMA

DISPOSAL INFORMATION

☒ Lab Disposal (return if not indicated)
Disposal Method: ______
Disposed by: ______ Disposal Date: ______

QC INFORMATION (check one)

☐SW-846 ☐CLP ☐Screening ☐AGI Std. ☐Special

Laboratory Number:

ANALYSIS REQUEST

PETROLEUM HYDROCARBONS: TPH-ID State: / TPH-G State: / TPH-D State: / TPH Special Instructions / 418.1 State: / 8015M
ORGANIC COMPOUNDS: 8010 Halogenated VOCs / 8020 Aromatic VOCs / 8020M - BETX only / 8240 GCMS Volatiles / 8270 GCMS Semivol. / 8310 HPLC PAHs / 8040 Phenols / DWS - Volatiles and Semivol.
PESTS/PCB's: 8080 OC Pest/PCBs / 8080M PCBs only / 8140 OP Pesticides / 8150 OC Herbicides / DWS - Herb/pest
METALS: Selected metals: list / Total Lead (Wa) / Organic Lead (Ca) / TCL Metals (23) / Priority Poll. Metals (13) / DWS - Metals / MFSP - Metals (Wa)
LEACHING TESTS: TCLP - Volatiles (ZHE) / TCLP - Semivolatiles / TCLP - Pesticides / TCLP - Metals
OTHER: BULK ASBESTOS

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	BULK ASBESTOS	NUMBER OF CONTAINERS
SPK R0001-02B-M	11/12	1435	ASB.		X	1
" " -02C-T	|	14:40	|		X	1
" " -02C-M	|	14:40	|		X	1
" " 03A-T	|	15:20	|		X	1
" " 03AM	|	"	|		X	1
" " 04A-T	|	1510	|		X	1
" " 04A-M	|	"	|	Cook	X	1
" " 05A-T	|	1445	|		X	1

LAB INFORMATION

Lab Name: A.T.I.
Lab Address:
Via: COURIER

SAMPLE RECEIPT

Total Number of Containers:
Chain of Custody Seals: Y/N/NA
Intact?: Y/N/NA
Received in Good Condition/Cold:

Turn Around Time: ☒ Standard ☐24 hr. ☐48 hr. ☐72 hr. ☐1 wk.

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH DATA

Special Instructions:

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: [signature] Time: 1210	Signature: Time:	Signature: Time:
Printed Name: J. AMBROSE Date: 11/12/93	Printed Name: Date:	Printed Name: Date:
Company: AGI	Company:	Company:

RECEIVED BY: 1.	RECEIVED BY: 2.	RECEIVED BY: 3.
Signature: [signature] Time: 1230	Signature: Time:	Signature: Time:
Printed Name: Date: 11/18	Printed Name: Date:	Printed Name: Date:
Company: ATI	Company:	Company:

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Geotechnical Engineering
Geology & Hydrogeology

43114167

CHAIN-OF-(STODY

Date 11/12/93 Page 3 of 5

PROJECT INFORMATION

Project Manager: S. REMOYAN
Project Name: FORT LEWIS DEH/ASBEST
Project Number: 14340.201
Site Location: SPK / MAIN HALL Sampled By: JMR

DISPOSAL INFORMATION

☐ Lab Disposal (return if not indicated)

Disposal Method: _____
Disposed by: _____ Disposal Date: _____

QC INFORMATION (check one)

☐SW-846 ☐CLP ☐Screening ☐AGI Std. ☐Special

Laboratory Number:

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID
SPK-R0001-05AM	11/12	1445	ASBEST	
SPK-R0001-06A-T		13:30		
" " 06A-M		"		
" " 06BT		1340		
" " 06BM		"		
" " 06CT		13:55		
" " 06CM		"		
" " 07A-T		13:05		

PETROLEUM HYDROCARBONS						ORGANIC COMPOUNDS								PESTS/PCB's					METALS						LEACHING TESTS				OTHER				NUMBER OF CONTAINERS
TPH-ID State:	TPH-G State:	TPH-D State:	TPH Special Instructions	418.1 State:	8015M	8010 Halogenated VOCs	8020 Aromatic VOCs	8020M - BETX only	8240 GCMS Volatiles	8270 GCMS Semivol.	8310 HPLC PAHs	8040 Phenols	DWS - Volatiles and Semivol.	8080 OC Pest/PCBs	8080M PCBs only	8140 OP Pesticides	8150 OC Herbicides	DWS - Herb/pest	Selected metals: list	Total Lead (Wa)	Organic Lead (Ca)	TCL Metals (23)	Priority Poll. Metals (13)	DWS - Metals	MFSP - Metals (Wa)	TCLP - Volatiles (ZHE)	TCLP - Semivolatiles	TCLP - Pesticides	TCLP - Metals	(BULK ASBESTOS)				
																													X				1
																													X				1
																													X				1
																													X				1
																													X				1
																													X				1
																													X				1

LAB INFORMATION

Lab Name: ATI
Lab Address:
Via: COURIER

SAMPLE RECEIPT

Total Number of Containers:
Chain of Custody Seals: Y/N/NA
Intact?: Y/N/NA
Received in Good Condition/Cold:

Turn Around Time: ☒ Standard ☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 1 wk.

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH DATA

Special Instructions:

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: Time: 1215	Signature: Time:	Signature: Time:
Printed Name: J. AMBROSE Date: 11/12	Printed Name: Date:	Printed Name: Date:
Company: AGI	Company:	Company:
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY: 3.**
Signature: Time:	Signature: Time:	Signature: Time:
Printed Name: Date: 11/12/93	Printed Name: Date:	Printed Name: Date:
Company:	Company:	Company:

Ap[illegible] l Geotechnology Inc.
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CHAIN-OF-[illegible]STODY

Date 11/12/93 Page 4 of 5

PROJECT INFORMATION

Project Manager: S. PENOYAR
Project Name: [illegible]340.201 FORT LEWIS
Project Number: 1434J-201
Site Location: SPAR, HAMMOND AVE Sampled By: JMM

DISPOSAL INFORMATION

(X) Lab Disposal (return if not indicated)
Disposal Method:
Disposed by: Disposal Date:

QC INFORMATION (check one)

☐SW-846 ☐CLP ☐Screening ☐AGI Std. ☐Special

Laboratory Number:

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID
SPR-1000-07AM	11/12	1305	HSB	
" " 07BF		1310		
" " 07BM		"		
" " 08A-T		1450		
" " 08A-M		"		
" " 08B-T		14:55		
" " 08B-M		"		
" " 08C-T		1458		

PETROLEUM HYDROCARBONS: TPH-ID State:; TPH-G State:; TPH-D State:; TPH Special Instructions; 418.1 State:; 8015M

ORGANIC COMPOUNDS: 8010 Halogenated VOCs; 8020 Aromatic VOCs; 8020M - BETX only; 8240 GCMS Volatiles; 8270 GCMS Semivol.; 8310 HPLC PAHs; 8040 Phenols; DWS - Volatiles and Semivol.

PESTS/PCB's: 8080 OC Pest/PCBs; 8080M PCBs only; 8140 OP Pesticides; 8150 OC Herbicides; DWS - Herb/pest

METALS: Selected metals: list; Total Lead (Wa); Organic Lead (Ca); TCL Metals (23); Priority Poll. Metals (13); DWS - Metals; MFSP - Metals (Wa)

LEACHING TESTS: TCLP - Volatiles (ZHE); TCLP - Semivolatiles; TCLP - Pesticides; TCLP - Metals

OTHER: [illegible] PCB'S

NUMBER OF CONTAINERS: 1; 1; 1; 1; 1; 1; 1; 1

LAB INFORMATION

Lab Name: ATL
Lab Address:
Via: COURIER

SAMPLE RECEIPT

Total Number of Containers:
Chain of Custody Seals: Y/N/NA
Intact?: Y/N/NA
Received in Good Condition/Cold:

Turn Around Time: (X) Standard ☐24 hr. ☐48 hr. ☐72 hr. ☐1 wk.

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH DATA

Special Instructions:

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: Time: 1225	Signature: Time:	Signature: Time:
Printed Name: J. AMBROSE Date: 11/12	Printed Name: Date:	Printed Name: Date:
Company: AGI	Company:	Company:
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY: 3.**
Signature: Time: 1630	Signature: Time:	Signature: Time:
Printed Name: Date: 11/12/93	Printed Name: Date:	Printed Name: Date:
Company:	Company:	Company:

DISTRIBUTION: White, Canary to Analytical Laboratory; Pink to AGI Project Files; Gold to AGI Disposal Files

Ap[illegible] Geotechnology Inc.
Geotechnical Engineering
Geology & Hydrogeology

CHAIN-OF-CUSTODY

3114617

Date 11/12/93 Page 5 of 5

PROJECT INFORMATION

Project Manager: S. PEWOYAN
Project Name: FORT LEWIS
Project Number: 14340.201
Site Location: FORT LEWIS WA Sampled By: TMA

DISPOSAL INFORMATION

☐ Lab Disposal (return if not indicated)
Disposal Method: ______
Disposed by: ______ Disposal Date: ______

QC INFORMATION (check one)

☐ SW-846 ☐ CLP ☐ Screening ☐ AGI Std. ☐ Special

Laboratory Number:

ANALYSIS REQUEST

- **PETROLEUM HYDROCARBONS:** TPH-ID State: · TPH-G State: · TPH-D State: · TPH Special Instructions · 418.1 State: · 8015M
- **ORGANIC COMPOUNDS:** 8010 Halogenated VOCs · 8020 Aromatic VOCs · 8020M - BETX only · 8240 GCMS Volatiles · 8270 GCMS Semivol. · 8310 HPLC PAHs · 8040 Phenols · DWS - Volatiles and Semivol.
- **PESTS/PCB's:** 8080 OC Pest/PCBs · 8080M PCBs only · 8140 OP Pesticides · 8150 OC Herbicides · DWS - Herb/pest
- **METALS:** Selected metals: list · Total Lead (Wa) · Organic Lead (Ca) · TCL Metals (23) · Priority Poll. Metals (13) · DWS - Metals · MFSP - Metals (Wa)
- **LEACHING TESTS:** TCLP - Volatiles (ZHE) · TCLP - Semivolatiles · TCLP - Pesticides · TCLP - Metals
- **OTHER:** BULK ASBESTOS

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	BULK ASBESTOS	NUMBER OF CONTAINERS
SPK-R0041-OBCM	11/12	1458	ASBEST		X	1

LAB INFORMATION

Lab Name: NTI
Lab Address:
Via: COURIER

SAMPLE RECEIPT

Total Number of Containers:
Chain of Custody Seals: Y/N/NA
Intact?: Y/N/NA
Received in Good Condition/Cold:

Turn Around Time: ☒ Standard ☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 1 wk.

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH DATA

Special Instructions:

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: [signature] Time: 1230	Signature: Time:	Signature: Time:
Printed Name: J. AMBROSE Date: 11/12/93	Printed Name: Date:	Printed Name: Date:
Company: AGI	Company:	Company:

RECEIVED BY: 1.	RECEIVED BY: 2.	RECEIVED BY: 3.
Signature: [signature] Time: 1630	Signature: Time:	Signature: Time:
Printed Name: Date: 11/[illegible]	Printed Name: Date:	Printed Name: Date:
Company:	Company:	Company:

AGI OFFICES: Bellevue: (206) 453-8383 Tacoma: (206) 383-4380
Portland: (503) 222-2820 Pleasanton: (415) 460-5495

DISTRIBUTION: White, Canary to Analytical Laboratory; Pink to AGI Project Files; Gold to AGI Disposal Files

Rev. 4/92

Amendment

Reference: Analytical Technologies, Inc.
Bulk Asbestos Sample Analysis Report
Dated 30 Mar 94
Accession 403637

The following report prepared by Analytical Technologies, Inc. and attached chain-of custody form for bulk asbestos samples collected at the Spokane USARC (Mann Hall) indicate an incorrect sample date. The correct date on which samples were collected, which is used in the asbestos survey report, is shown below:

Incorrect Sample Date	Correct Sample Date
21-Feb-94	21-Mar-94

Analytical Technologies, Inc. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

SIGNATURE PAGE

Reviewed by: _____
ATI Project Manager

Client:	APPLIED GEOTECHNOLOGY INC BELLEVUE, WASHINGTON
Project Name:	FORT LEWIS/DEH/ASBESTOS SURVEYS
Project Number:	14340.201
Project Location:	SPOKANE (MANN)
Accession Number:	403637
Project Manager:	S. PENOYAR
Sampled By:	J. M. AMBROSE

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Departmental Approval

Accession:	403637
Client:	APPLIED GEOTECHNOLOGY INC
Project Number:	14340.201
Project Name:	FORT LEWIS/DEH/ASBESTOS SURVEYS
Project Location:	SPOKANE (MANN)
Department:	INDUSTRIAL HYGIENE
Supervisor:	John D. Meade

This data package has been reviewed and approved by:

James P. Burkholder Date: 30 MR 94

Analyzed by: Lisa J. Adair

Accession: 403637
Client: APPLIED GEOTECHNOLOGY INC
Project Number: 14340.201
Project Name: FORT LEWIS/DEH/ASBESTOS SURVEYS
Project Location: SPOKANE (MANN)
Test: TOTAL FIBROUS ASBESTOS (%)
Matrix: BULK

Lab Id	Sample Date	Analysis Date	Client Sample Id
001	21-FEB-94 1200	25-MAR-94	SPK-R0001-05 B-T
002	21-FEB-94 1200	25-MAR-94	SPK-R0001-05 B-M
003	21-FEB-94 1215	25-MAR-94	SPK-R0001-05 C-T
004	21-FEB-94 1215	25-MAR-94	SPK-R0001-05 C-M
005	21-FEB-94 1235	25-MAR-94	SPK-R0001-04 D-T

Components	Laboratory Id: 001	002	003	004	005
TOTAL FIBROUS ASBESTOS (%)	ND	ND	ND	ND	ND
RUBBEROID (%)	100		100		100
MASTIC (%)		100		100	
UNIFORMITY	U	U	U	U	U
SAMPLE COLOR.	GR	BR	GR	BR	B

Accession: 403637
Client: APPLIED GEOTECHNOLOGY INC
Project Number: 14340.201
Project Name: FORT LEWIS/DEH/ASBESTOS SURVEYS
Project Location: SPOKANE (MANN)
Test: TOTAL FIBROUS ASBESTOS (%)
Matrix: BULK

Lab Id	Sample Date	Analysis Date	Client Sample Id
006	21-FEB-94 1235	25-MAR-94	SPK-R0001-04 D-M
007	21-FEB-94 1247	25-MAR-94	SPK-R0001-04 B-T
008	21-FEB-94 1247	25-MAR-94	SPK-R0001-04 B-M
009	23-FEB-94 1312	25-MAR-94	SPK-R0001-04 C-T
010	23-FEB-94 1312	25-MAR-94	SPK-R0001-04 C-M

Components	Laboratory Id: 006	007	008	009	010
TOTAL FIBROUS ASBESTOS (%)	ND	ND	ND	ND	ND
MASTIC (%)	100		100		100
RUBBEROID (%)		100		100	
UNIFORMITY	U	U	U	U	U
SAMPLE COLOR.	BR	B	BR	B	BR

Accession: 403637
Client: APPLIED GEOTECHNOLOGY INC
Project Number: 14340.201
Project Name: FORT LEWIS/DEH/ASBESTOS SURVEYS
Project Location: SPOKANE (MANN)
Test: TOTAL FIBROUS ASBESTOS (%)
Matrix: BULK

Lab Id	Sample Date	Analysis Date	Client Sample Id
011	23-FEB-94 1330	25-MAR-94	SPK-R0001-03 B-T
012	23-FEB-94 1330	25-MAR-94	SPK-R0001-03 B-M
013	23-FEB-94 1339	25-MAR-94	SPK-R0001-03 C-T
014	23-FEB-94 1339	25-MAR-94	SPK-R0001-03 C-M

Components	Laboratory Id: 011	012	013	014
TREMOLITE ASBESTOS (%)	<1		<1	
TOTAL FIBROUS ASBESTOS (%)	<1	ND	<1	ND
ANISOTROPIC RODS (%)	5		5	
NONFIBROUS TREMOLITE (%)	<1		<1	
TILE COMPONENTS (%)	93		93	
MASTIC (%)		100		99
TALC (%)				<1
UNIFORMITY	U	U	U	U
SAMPLE COLOR.	BR	T	BR	T
SAMPLE COLOR..	O		O	
SAMPLE COLOR...	W		W	
SAMPLE COLOR....	S		S	

Applied Geotechnology Inc.
Geotechnical Engineering
Geology & Hydrogeology

CHAIN-OF-CUSTODY

Date 3/23/94 Page 1 of 2

PROJECT INFORMATION

Project Manager: S. PENOYAR
Project Name: FORT LEWIS DEN/ASBESTOS
Project Number: 14340701
Site Location: SPOKANE (MANS) Sampled By: JMA

DISPOSAL INFORMATION

☒ Lab Disposal (return if not indicated)
Disposal Method: ______
Disposed by: ______ Disposal Date: ______

QC INFORMATION (check one)

☐ SW-846 ☐ CLP ☐ Screening ☒ AGI Std. ☐ Special

Laboratory Number:

ANALYSIS REQUEST

- PETROLEUM HYDROCARBONS: TPH-ID State:; TPH-G State:; TPH-D State:; TPH Special Instructions; 418.1 State:; 8015M
- ORGANIC COMPOUNDS: 8010 Halogenated VOCs; 8020 Aromatic VOCs; 8020M - BETX only; 8240 GCMS Volatiles; 8270 GCMS Semivol.; 8310 HPLC PAHs; 8040 Phenols; DWS - Volatiles and Semivol.
- PESTS/PCB's: 8080 OC Pest/PCBs; 8080M PCBs only; 8140 OP Pesticides; 8150 OC Herbicides; DWS - Herb/pest
- METALS: Selected metals: list; Total Lead (Wa); Organic Lead (Ca); TCL Metals (23); Priority Poll. Metals (13); DWS - Metals; MFSP - Metals (Wa)
- LEACHING TESTS: TCLP - Volatiles (ZHE); TCLP - Semivolatiles; TCLP - Pesticides; TCLP - Metals
- OTHER: BULK ASBEST.

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	BULK ASBEST.	NUMBER OF CONTAINERS
SPK-R0001-05BT	2/21	1200	ASBEST		X	1
" " 05BM		1200			X	"
" " 05CT		1215			X	1
" " 05CM		"			X	"
SPK-R0001-04DT		1235			X	1
" " 040M		"			X	"
SPK-R0001-04BT		1247			X	1
" " 04BM		"			X	"

LAB INFORMATION

Lab Name: A.T.I.
Lab Address: PEW. FL
Via: COURIER

SAMPLE RECEIPT

Total Number of Containers:
Chain of Custody Seals: Y/N/NA
Intact?: Y/N/NA
Received in Good Condition/Cold:

Turn Around Time: ☐ Standard ☒ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 1 wk.

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH DATA

Special Instructions:
T = TILE M = MASTIC

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: [signature] Time: 1125	Signature: Time:	Signature: Time:
Printed Name: J. AMBROSE Date: 3/23/94	Printed Name: Date:	Printed Name: Date:
Company: AGI	Company:	Company:

RECEIVED BY: 1.	RECEIVED BY: 2.	RECEIVED BY: 3.
Signature: [signature] Time: 0830	Signature: Time:	Signature: Time:
Printed Name: [illegible] Date: [illegible]	Printed Name: Date:	Printed Name: Date:
Company: ATI	Company:	Company:

AGI OFFICES: Bellevue: (206) 453-8383 Tacoma: (206) 383-4380 Portland: (503) 222-2820 Pleasanton: (415) 460-5495

DISTRIBUTION: White, Canary to Analytical Laboratory; Pink to AGI Project Files; Gold to AGI Disposal Files

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App Geotechnology Inc.
Geotechnical Engineering
Geology & Hydrogeology

403637

CHAIN-OF-C TODY

Date 3/23/94 Page 2 of 2

PROJECT INFORMATION

Project Manager: S. PENOYAR
Project Name: FORT LEWIS DEM/ASBESTOS
Project Number: 14340 201
Site Location: SPOKANE Main Sampled By: JMA

DISPOSAL INFORMATION

(X) Lab Disposal (return if not indicated)
Disposal Method: _____
Disposed by: _____ Disposal Date: _____

QC INFORMATION (check one)

☐SW-846 ☐CLP ☐Screening ☒AGI Std. ☐Special

Laboratory Number:

ANALYSIS REQUEST

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	PETROLEUM HYDROCARBONS: TPH-ID State:	TPH-G State:	TPH-D State:	TPH Special Instructions	418.1 State:	8015M	ORGANIC COMPOUNDS: 8010 Halogenated VOCs	8020 Aromatic VOCs	8020M - BETX only	8240 GCMS Volatiles	8270 GCMS Semivol.	8310 HPLC PAHs	8040 Phenols	DWS - Volatiles and Semivol.	PESTS/PCB's: 8080 OC Pest/PCBs	8080M PCBs only	8140 OP Pesticides	8150 OC Herbicides	DWS - Herb/pest	METALS: Selected metals: list	Total Lead (Wa)	Organic Lead (Ca)	TCL Metals (23)	Priority Poll. Metals (13)	DWS - Metals	MFSP - Metals (Wa)	LEACHING TESTS: TCLP - Volatiles (ZHE)	TCLP - Semivolatiles	TCLP - Pesticides	TCLP - Metals	OTHER: BULK ASBESTOS				NUMBER OF CONTAINERS
SPK-R0001-04CT	3/23	1312	ASBEST																																X				1
" " 04CM		"																																	X				"
SPK-R0001-03BT		1330																																	X				1
" " 03BM		"																																	X				"
SPK-R0001-03CT		1339																																	X				1
" " 03CM		"																																	X				"

LAB INFORMATION

Lab Name: A.T.L.
Lab Address: PEN. FL.
Via: CO

SAMPLE RECEIPT

Total Number of Containers:
Chain of Custody Seals: Y/N/NA
Intact?: Y/N/NA
Received in Good Condition/Cold:

Turn Around Time: ☐ Standard (X) 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 1 wk.

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH DATA

Special Instructions: T = TILE
M = MASTIC

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: Time: 1230	Signature: Time:	Signature: Time:
Printed Name: J. AMBUSE Date: 3/23	Printed Name: Date:	Printed Name: Date:
Company: AGI	Company:	Company:
RECEIVED BY: 1.	**RECEIVED BY: 2.**	**RECEIVED BY: 3.**
Signature: Time: 0920	Signature: Time:	Signature: Time:
Printed Name: S. Wlodarski Date: 3-24-94	Printed Name: Date:	Printed Name: Date:
Company: ATL	Company:	Company:

AGI OFFICES: Bellevue: (206) 453-8383 Tacoma: (206) 383-4380
Portland: (503) 222-2820 Pleasanton: (415) 460-5495

DISTRIBUTION: White, Canary to Analytical Laboratory; Pink to AGI Project Files; Gold to AGI Disposal Files

Rev. 4/92

AGI TECHNOLOGIES

APPENDIX B

Analytical Laboratory Accreditation

United States Department of Commerce
National Institute of Standards and Technology

NVLAP

Certificate of Accreditation

ANALYTICAL TECHNOLOGIES, INC.
PENSACOLA, FL

is recognized under the National Voluntary Laboratory Accreditation Program for satisfactory compliance with criteria established in Title 15, Part 7 Code of Federal Regulations. Accreditation is awarded for specific services, listed on the Scope of Accreditation, for:

BULK ASBESTOS FIBER ANALYSIS

October 1, 1994
Effective until

DEPARTMENT OF COMMERCE * UNITED STATES OF AMERICA *

For the National Institute of Standards and Technology

NVLAP LAB CODE: 1250

THE DEEP SOUTH CENTER FOR OCCUPATIONAL HEALTH AND SAFETY

CERTIFIES THAT

Suzanne Wdowiak

Has Attended and Satisfactorily Passed
An Examination For

SAMPLING AND ANALYSIS OF ASBESTOS MATERIALS

Birmingham, Alabama
July 25 - 29, 1988

E. D. Lynch
PROGRAM DIRECTOR

C. Wade Mitchell
COURSE INSTRUCTOR

A NIOSH-Supported Educational Resource Center
University of Alabama at Birmingham
and Auburn University

McCRONE RESEARCH INSTITUTE

certifies that

James R. Burkhalter

has successfully completed an intensive course of instruction in

"Identification of Asbestos"

given by the McCrone Research Institute

Presented this 19th day of November, 1982

Nancy B. Baer

Walter C McCrone

United States Department of Commerce
National Institute of Standards and Technology

NVLAP

Certificate of Accreditation

PREZANT ASSOCIATES, INC.
SEATTLE, WA

is recognized under the National Voluntary Laboratory Accreditation Program for satisfactory compliance with criteria established in Title 15, Part 7 Code of Federal Regulations. Accreditation is awarded for specific services, listed on the Scope of Accreditation, for:

BULK ASBESTOS FIBER ANALYSIS

January 1, 1994
Effective until

DEPARTMENT OF COMMERCE * UNITED STATES OF AMERICA *

For the National Institute of Standards and Technology

NVLAP LAB CODE: 1886

Certificate of Completion

This is to certify that

Asya Oganyan

has satisfactorily completed

16 weeks of training in

Bulk Asbestos Fiber Analysis

Date

July 8, 1992

Training Coordinator

Prezant Associates, Inc.
Environmental Health Services and Engineering

AGI TECHNOLOGIES

APPENDIX C

Inspector Accreditation

Certificate of Training

Environmental Health Sciences, Inc.
certifies that

John Ambrose

has successfully completed the
AHERA Building Inspector Training
in accordance with
40 CFR Part 763, Subpart E, Appendix C
on this 15th day of September, 1993
in Bellevue, Washington.

Expires September 15, 1994

Paul W Jackson
TRAINING DIRECTOR

930908-01
CERTIFICATION NO.

Certificate of Training

Environmental Health Sciences, Inc.
certifies that

William C. Dewey

has successfully completed the
AHERA Building Inspector
Training Refresher in accordance with
40 CFR Part 763, Subpart E, Appendix C
on this 7th day of September, 1993
in Bellevue, Washington.

Expires September 7, 1994

Paul W Jackson
TRAINING DIRECTOR

930902-10
CERTIFICATION NO.

✓ WA32

THERMATECH NORTHWEST, INC.

GOOD FAITH ASBESTOS SURVEY

PREPARED FOR:

TROY ALEXANDER

Centennial Contractors, Inc.
PO Box 3277
Post Falls, ID 83877

10312 Sales Road South * Lakewood WA 98499 * Phone (253) 984-1818 * Fax: (253) 840 6752

LOCATION OF SURVEY:

4415 North Market Street
Spokane, WA 99207

TTNW #SV030325
Report Date: March 27, 2003

PERFORMED BY:

Robert J. Guiley
AHERA Certification #03-118
Expiration Date January 17, 2004

TABLE OF CONTENTS

SCOPE OF WORK

On March 17, 2003 Robert J Guiley conducted a "Good Faith" asbestos survey (per U.S.E.P.A / A.H.E.R.A. guidelines as designated by *Puget Sound Air Pollution Control Agency*) of the United States Army Reserve Center, known as Mann Hall, located at 4415 North Market Street, Spokane, WA 99207. Field inspection, data collection and report generation were based on the following Scope of Work:

- Perform visual inspection to identify and inventory all accessible suspect-asbestos containing materials.
- Bulk sampling and analysis of all identified suspect asbestos-containing materials.
- Provide written report.

The original facility was constructed In the 1950's, with an addition added in the 1970's. Since then the basement firing range in the main building has been replaced with offices. The motor pool offices have been remodeled within the last ten years. The main building is the facility headquarters with multiple classrooms, medical wing, storage areas, numerous offices and an assembly room. The motor pool has multiple offices, storage areas and vehicle service bays.

To date one other asbestos survey has been performed. AGI technologies performed an asbestos survey in 1993. Three of the confirmed samples from their survey are acknowledged in this survey.

BASIC CONSTRUCTION:

The structure is a two story, operating Army Reserve Center with basement. The exterior of the building is decorative brick over CMU building block. The roof is built-up roofing. The roof has been recently replaced. The windows are aluminum framed with single pane glass. The main lobby windows are built into a solid aluminum frame.

HEATING & VENTILATION SYSTEM:

A hot water heating system supplies heat to the building. The boiler room and piping have been abated. There may, however, be some pipe insulation in the walls. Care must be taken to watch for any pipe insulation when any destructive demolition is being done.

PLUMBING SYSTEM:
The plumbing system is a combination of galvanized and copper pipe. Some of the pipes are insulated with fiberglass.

ELECTRICAL SYSTEM:
The electrical system consists of single wire through conduit. There are several breaker boxes in the boiler room.

INTERIOR CONSRTUCTION, FINISHES & FLOORING:
The interior walls are a combination of painted building block and wallboard on metal and wood framing. The floors are covered with Vinyl tile. The floors of the second floor are hardwood. The processing room of the X-Ray department is finished with ceramic tile.

SAMPLE METHODS AND LABORATORY INFORMATION

A walk- through inspection of all areas was performed to identify which building materials may have the potential for containing asbestos.

After identifying the suspect asbestos-containing materials, bulk samples were collected, placed in plastic bags, numbered and recorded. Care was taken to clean all tools between sampling in order to avoid cross-contamination. The samples and appropriate chain of custody forms were then sent to Orion Laboratories to be analyzed for the type and content of asbestos, if any. The samples were analyzed using Polarized Light Microscopy (PLM) Stain Dispersion Technique in accordance with EPA METHOD 600/R-93/116

It must be noted that the structure surveyed is an operating military facility. Care was taken while collecting the samples to avoid being a hindrance to the operation. All areas requiring destructive sampling were sealed and encapsulated. Destructive methods were used to gain access to suspect materials, however there may be additional materials hidden in inaccessible and sensitive areas.

The following section contains tables listing all materials sampled by location, description, type, asbestos percentage (if any) category, and results of materials sampled.

ASBESTOS SAMPLE DATA

Project: 4415 North Market Street, Spokane, WA 99207

SV030325
March 27, 2003

Sample #	Location	Category	Description	Asbestos Type/%	Quantity Square Feet
M-1	Chaplain - 168/283	Non Friable	Pink Tile/Mastic	Chrysotile 3%	
M-2	Break Area -160-170	Non Friable	Cream, Tan Tile/Mastic	Chrysotile 2% <1% Tremolite	
M-3	Hall Medical Wing	Non Friable	Glue Dots	Chrysotile 3%	
M-4	Hall Medical Wing	Friable	Ceiling Tile	Non Detected	
M-5	Administration Area	Non Friable	Tan/Brown 12x12 Tile/Mastic	Chrysotile 2%	
M-6	Main Hall original Building	Friable	2'x4' Ceiling Panels	Non Detected	
M-7	Administration Area	Non Friable	Dark Brown Cove Base Mastic	Non Detected	
M-8	Equipment Room	Non Friable	Brown/Tan 12x12 Tile/Mastic	Non Detected	
M-9	Equipment Room	Friable	Vibration Damper	Chrysotile 40%	
M-10	Kitchen	Non Friable	Dark Brown Cove Base Mastic	Non Detected	
M-11	Training Room	Non Friable	Dark Brown Cove Base Mastic	Chrysotile 2% <1% Tremolite	
M-12	Assembly Hall	Non Friable	Dark Brown Cove Base Mastic	Chrysotile 2% <1% Tremolite	
M-13	Kitchen	Non Friable	Red Quarry Tile	Non Detected	

ASBESTOS SAMPLE DATA

Project: 4415 North Market Street, Spokane, WA 99207

SV030325
March 27, 2003

Sample #	Location	Category	Description	Asbestos Type/%	Quantity Square Feet
M-14	Assembly Hall	Non Friable	Paneling Mastic	Non Detected	
M-15	Mezzanine Windows	Non Friable	Glazing	Non Detected	
M-16	Training Room	Non Friable	GWB & Joint Compound	Non Detected	
M-17	Administration Area	Non Friable	GWB & Joint Compound	Non Detected	
M-18	Medical Area	Non Friable	GWB & Joint Compound	Non Detected	
M-19	Assembly Hall	Friable	Vibration Damper	Chrysotile 40 %	
M-20	Exterior Training Room Window	Non Friable	Black Caulking	Non Detected	
M-21	Exterior Training Room Window	Non Friable	Gray Caulking	Non Detected	
M-22	West Exit Door	Friable	Interior White Insulation	Non Detected	
M-23	X-Ray Processing Room	Non Friable	Dark Gray Grout	Non Detected	
M-24	X-Ray Processing Room	Non Friable	Tile Adhesive	Non Detected	
M-25	2nd Floor Supply Room	Non Friable	Slip Sheet Between Floors	Non Detected	
M-26	2nd Floor Men's Restroom	Non Friable	Glazing	Non Detected	

ASBESTOS SAMPLE DATA

Project: 4415 North Market Street, Spokane, WA 99207 **SV030325**
March 27, 2003

Sample #	Location	Category	Description	Asbestos Type/%	Quantity Square Feet
M-27	Main Shop	Friable	Pipe Insulation	Non Detected	
M-28	Motor Pool Oil Storage Area	Non Friable	GWB & Joint Compound	Non Detected	
M-29	Motor Pool Battery Storage Area	Non Friable	GWB & Joint Compound	Non Detected	
M-30	Motor Pool Offices & Rest Rooms	Non Friable	Off White 12x12 Tile	Non Detected	
M-31	Boiler Room	Friable	Pipe Insulation	Non Detected	
R001-06	Offices, Classroom, Equipment Room. Janitor Closet	Non Friable	Brown/White/Red Tile & Mastic	Chrysotile 15 % Chrysotile 20 %	
R001-07	X-ray & Hearing Test Room	Non Friable	Black Tile & Mastic	Chrysotile 5 % Chrysotile 15%	
R001-08	Medical Area	Non Friable	Off White/brown Tile & Mastic	Chrysotile 3% Chrysotile 15 %	

SUMMARY OF MATERIALS FOUND POSITIVE

Upon completion of the survey and review of the laboratory data, the following materials found contained asbestos at the structures located at, 4415 North Market Street, Spokane, WA 99207.

- **The brown-white-red 9x9 tile and mastic located in the offices, classroom, back portion of the equipment room and the janitor's closet in the hall of the main facility. (Sample #R001-06). (See Appendix D).**
- **The black tile & mastic located in the X-Ray room and the hearing test room of the medical wing. (Sample #R001-07). (See Appendix D).**
- **The off-white/brown tile & mastic located in the medical wing. (Sample #R001-08). (See Appendix D).**
- **The black mastic associated with the pink tile in the Chaplain's office. (Sample #M-1). (See Appendix D).**
- **The dark brown glue dots associated with the 12x12 ceiling tile located in the medical wing and west-portion of the main hall. There is also a small area in the hall to the stair descending to the basement. (Sample #M-3).**
- **The vibration dampers associated with the ventilation systems located in the assembly hall and the equipment room. (Sample #M-9, M-19).**
- **The dark brown cove base mastic located throughout the facility. (Sample #M-11, M-12).**
- **The black mastic associated with the tan-brown tile located in the administration area. (Sample M-5). (See Appendix D).**
- **No asbestos was found in the motor pool.**

DEFINITIONS

Asbestos means the asbestiform varieties of actinolite, amosite (cummingtonite-grunerite), tremolite, chrysotile (serpentinite), crocidolite (riebeckite), or anthophyllite.

Asbestos-Containing Material means any material containing more than one percent (1%) asbestos as determined using the method specified in EOA regulations (Polarized Light Microscopy).

Friable – materials that can be crumbled or reduced to powder by hand pressure.

Homogeneous Areas – an area which appears similar throughout in terms of color, texture, and date of materials application.

Miscellaneous Materials – interior building material on structural components, structural members of fixtures, such as floor and ceiling tiles, and does not include surfacing material or thermal system insulation (AHERA definition).

Surfacing Material – material that is sprayed-on, troweled- on, or otherwise applied to surfaces, such as acoustical plaster on ceilings, and fireproofing materials on structural members, or other materials o n surfaces for acoustical, fireproofing, or other purposes (AHERA definition).

Thermal System Insulation – means material applied to pipes, fittings, boilers, breeching, tanks, ducts or other interior structural components to prevent heat loss or gain, or water condensation, or for other purposes.

CONCLUSION

Abatement and disposal of asbestos-containing materials must be conducted by a Washington State Licensed Asbestos Abatement Contractor using Washington State Certified Asbestos Abatement Workers. Should employees or contract personnel encounter any suspect asbestos-containing materials, it is their responsibility to:

- Contact a representative of the owners.
- Consult the inspection report to determine whether or not the suspect material contains asbestos.
- Ensure that all employees and contractors are informed and advised of the location and type of materials that contain asbestos

Any additional hidden or covered suspect materials, discovered during demolition or renovation, that are similar to those identified in this survey must be treated as asbestos-containing materials unless determined otherwise by laboratory analysis.

A copy of this report should be kept on site during any asbestos abatement, renovation, or demolition.

Please contact the undersigned for any further assistance or if any questions or concerns arise relative to this report.

Sincerely,

Robert Guiley
AHERA Building Inspector

Appendix #A

INSPECTOR'S CERTIFICATION

Certificate of Completion

This is to certify that

Robert J. Guiley

has satisfactorily completed
4 hours of refresher training as a

Building Inspector

in compliance with TSCA Title II
AHERA Accredited
State of Missouri Training Provider # MO 00-10-025

Exam Date: January 17, 2003

Instructor: Robert Welch

Exp. Date: January 17, 2004

Prezant

THE NORTHWEST'S LEADING TRAINING ORGANIZATION

Cert. # 03-118
Conducted at:
Prezant Associates, Inc. Seattle, WA

Prezant Associates, Inc. • 330 Sixth Avenue North, Suite 200 • Seattle, Washington 98109 • (206) 281-8858

Appendix #B

FIELD DATA / LABORATORY RESULTS

THERMATECH NORTHWEST INC.
1711 6TH ST S.W.
Puyallup, WA 98371
PH: 253-984-1818 FAX: 253-984-1886

DATE: 3/17/2003
CLIENT: Troy Alexander
ADDRESS: Centennial Contractors Ent. Inc.
PO Box 3277
Post Falls, Idaho 83877

FIELD DATA SUMMARY

TTNW JOB#:BSSV030325
INSPECTOR: BOB GUILEY

SITE: NAME ADDRESS;

Mann Hall
4415 North Market Street
Spokane, WA 99207-5830

SAMPLE NO.	FLOOR	LOCATION	DESCRIPTION OF MATERIAL
M-1	1	Chaplin - 168/283	Pink Tile/Mastic
M-2	1	Break Area -160-170	Cream,Tan Tile/Mastic
M-3	1	Hall Medical Wing	Glue Dots
M-4	1	Hall Medical Wing	Ceiling Tile
M-5	1	Administration Area	Tan/Brown 12x12 Tile/Mastic
M-6	1	Main Hall original Building	2'x4' Ceiling Panels
M-7	1	Administration Area	Dark Brown Cove Base Mastic
M-8	1	Equipment Room	Brown/Tan 12x12 Tile/Mastic
M-9	1	Equipment Room	Vibration Damper
M-10	1	Kitchen	Dark Brown Cove Base Mastic
M-11	1	Training Room	Dark Brown Cove Base Mastic
M-12	1	Assembly Hall	Dark Brown Cove Base Mastic
M-13	1	Kitchen	Red Quarry Tile
M-14	1	Assembly Hall	Paneling Mastic
M-15	Exterior	Mezzanine Windows	Glazing
M-16	1	Training Room	GWB & Joint Compound
M-17	1	Administration Area	GWB & Joint Compound
M-18	1	Medical Area	GWB & Joint Compound
M-19	Mezz	Assembly Hall	Vibration Damper
M-20	Exterior	Exterior Training Room Window	Black Caulking
M-21	Exterior	Exterior Training Room Window	Gray Caulking
M-22	Door	West Exit Door	Interior White Insulation
M-23	1	X-Ray Processing Room	Dark Gray Grout
M-24	1	X-Ray Processing Room	Tile Adhesive
M-25	2	2nd Floor Supply Room	Slip Sheet Between Floors
M-26	2	2nd Floor Men's Restroom	Glazing
M-27	Shop	Main Shop	Pipe Insulation
M-28	Shop	Motor Pool Oil Storage Area	GWB & Joint Compound
M-29	Shop	Motor Pool Battery Storage Area	GWB & Joint Compound
M-30	Shop	Mpotr Pool Offices & Rest Rooms	Off White 12x12 Tile
M-31	1	Boiler Room	Pipe Insulation
R001-06	1	Offices, Classroom, Eqip. Rm. Jan Cl	Brown/White/Red Tile & Mastic
R001-07	1	X-ray & Hearing Test Room	Black Tile & Mastic
R001-08	1	Medical Area	Off White/brown Tile & Mastic

Orion Environmental Services

34004 9th Avenue South ♦ Building A Suite 5 ♦ Federal Way, Washington 98003-6740
VBE W2F5912535 Telephone Seattle (253) 874-8118 ♦ Tacoma (253) 952-6717 ♦ Facsimile (253) 927-4714 ♦ email ORION6717@aol

Polarized Light Microscopy Test Report
EPA Method 600/R-98/116

Client Thermatech Northwest Inc.
10312 Sales Road South
Lakewood, WA 98449

Date March 25, 2003
Page Page 1 of 4
Invoice 030669
Date Received March 18, 2003

Project Number 03-0325
Project Name Mann Hall

Client Number	Orion Number	Stereo Scope Exam	Sample Treatment	Asbestos Percent	Asbestos Type	Other Fibers
M-01a	30318-28a	Pink Vinyl Tile Homogeneous	Ash	ND	-	-
M-01b	**30318-28b**	**Mastic Assoc. w/ M-01a**	**Chloroform**	**3**	**Chrysotile**	**Cellulose**
M-02a	30318-29a	Cream Vinyl Tile Homogeneous	Ash	ND	-	-
M-02b	30318-29b	Mastic Assoc. w/ M-02a	Chloroform	ND	-	Cellulose
M-03	**30318-30**	**Glue Dots Homogeneous**	**Chloroform**	**2** <1	**Chrysotile** Tremolite	**Cellulose**
M-04	30318-31	Ceiling Tile Homogeneous	Ash	ND	-	Cellulose Fiberglass
M-05a	30318-32a	Tan / Brown Vinyl Tile Homogeneous	Ash	ND	-	-
M-05b	**30318-32b**	**Mastic Assoc. w/ M-05a**	**Chloroform**	**2**	**Chrysotile**	**Cellulose**
M-06	30318-33	Ceiling Panel Homogeneous	Ash	ND	-	Cellulose
M-07	30318-34	Cove Base Mastic Homogeneous	Chloroform	ND	-	Cellulose
M-08a	30318-35a	Brown / Tan Vinyl Tile Homogeneous	Ash	ND	-	-
M-08b	30318-35b	Mastic Assoc. w/ M-08a	Chloroform	ND	-	Cellulose
M-09	**30318-36**	**Vibration Damper Homogeneous**	-	**40**	**Chrysotile**	**Cellulose**

Orion Environmental Services

VBE W2F5912535

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Polarized Light Microscopy Test Report
EPA Method 600/R-98/116

Client Thermatech Northwest Inc.
10312 Sales Road South
Lakewood, WA 98449

Date March 25, 2003
Page Page 2 of 4
Invoice 030669
Date Received March 18, 2003

Project Number 03-0325
Project Name Mann Hall

Client Number	Orion Number	Stereo Scope Exam	Sample Treatment	Asbestos Percent	Asbestos Type	Other Fibers
M-10	30318-37	Dark Brown Cove Base Mastic Homogeneous	Chloroform	ND	-	Cellulose
M-11	30318-38	Cove Base Mastic Homogeneous	Chloroform	2 <1	Chrysotile Tremolite	Cellulose
M-12	30318-39	Cove Base Mastic Homogeneous	Chloroform	2 <1	Chrysotile Tremolite	Cellulose
M-13	30318-40	Quary Tile Homogeneous	Crush	MD	-	-
M-14	30318-41	Paneling Glue Homogeneous	Chloroform	ND	-	Cellulose
M-15	30318-42	Glazing Homogeneous	-	ND	-	-
M-16a	30318-43a	Joint Compound Assoc. w/ M-16b	-	ND	-	Cellulose
M-16b	30318-43b	Wallboard Homogeneous	-	ND	-	Cellulose
M-17a	30318-44a	Joint Compound Assoc. w/ M-17b	-	ND	-	Cellulose
M-17b	30318-44b	Wallboard Homogeneous	-	ND	-	Cellulose
M-18a	30318-45a	Joint Compound Assoc. w/ M-18b	-	ND	-	Cellulose
M-18b	30318-45b	Wallboard Homogeneous	-	ND	-	Cellulose

Orion Environmental Services

/BE W2F5912535

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Polarized Light Microscopy Test Report
EPA Method 600/R-98/116

Client Thermatech Northwest Inc.
10312 Sales Road South
Lakewood, WA 98449

Date March 25, 2003
Page Page 3 of 4
Invoice 030669
Date Received March 18, 2003

Project Number 03-0325
Project Name Mann Hall

Client Number	Orion Number	Stereo Scope Exam	Sample Treatment	Asbestos Percent	Asbestos Type	Other Fibers
M-19	30318-46	Vibration Damper Homogeneous	-	40	Chrysotile	Cellulose
M-20	30318-47	Black Caulking Homogeneous	-	ND	-	-
M-21	30318-48	Gray Caulking Homogeneous	-	ND	-	-
M-22	30318-49	Door Insulation Homogeneous	-	ND	-	-
M-23	30318-50	Dark Gray Grout Homogeneous	Crush	ND	-	-
M-24	30318-51	Tile Adhesive Homogeneous	Chloroform	ND	-	Cellulose
M-25	30318-52	Slip Sheeting Homogeneous	Ash	ND	-	Cellulose
M-26	30318-53	Glazing Homogeneous	-	ND	-	Cellulose

Orion Environmental Services

34004 9th Avenue South • Building A Suite 5 • Federal Way, Washington 98003-6740
BE W2F5912535 Telephone Seattle (253) 874-8118 • Tacoma (253) 952-6717 • Facsimile (253) 927-4714 • email ORION6717@aol

Polarized Light Microscopy Test Report
EPA Method 600/R-98/116

Client Thermatech Northwest Inc.
10312 Sales Road South
Lakewood, WA 98449

Date March 26, 2003
Page Page 1 of 1
Invoice 030744
Date Received March 26, 2003

Project Number 03-0325
Project Name Mann Hall

Client Number	Orion Number	Stereo Scope Exam	Sample Treatment	Asbestos Percent	Asbestos Type	Other Fibers
M-28a	30326-16a	Joint Compound Assoc. w/ M-28b	-	ND	-	Cellulose
M-28b	30326-16b	Wallboard Homogeneous	-	ND	-	Cellulose
M-29a	30326-17a	Joint Compound Assoc. w/ M-28b	-	ND	-	Cellulose
M-29b	30326-17b	Wallboard Homogeneous	-	ND	-	Cellulose
M-30	30326-18	Off-White Vinyl Tile Homogeneous	Ash	ND	-	-
M-31	30326-19	Pipe Insulation Homogeneous	-	ND	-	Fiberglass

Dup: Laboratory QA/QC Duplicate; M; Mastic [(a), (b), (c), etc.]: Sample layers numbered from front to back.
Comments: For layered samples, each component has been analyzed separately. ND means non-detect for asbestos fibers by EPA Method 600/R-98/116.
Disclaimers: PLM has been known to miss asbestos in a small percentage of samples that contain asbestos. Thus negative PLM results cannot be guaranteed.
This report may only be reproduced in full with written approval of ORION Environmental Services.
Orion samples are analyzed according to EPA Method 600/R-98/116 by AIHA Bulk Asbestos Analytical Testing Program (102911) proficient analysts.

Reviewed By DMcNeal/ko
Donna McNeal
Laboratory Director

Leading Environmental Compliance Consulting Into the 21st Century

Cl of C ody Sar Inv ory l rd

Laboratory Work Identification Number: 030609 2 of 3

ORION Envi enta vices
34004 9th Avenue South, Building A Suite 5, Federal Way, Washington 98003-6740
Telephone Seattle - (253) 874-8118 Tacoma - (253) 952-6717 Facsimile (253) 927-4714

Client Name : Thermatech Northwest, Inc.
Address: 10312 Sales Road South
Lakewood, WA 98499

Attention: Bob Guiley Senior
Project Name: Mann Hall
Project Number : 030325

Telephone: 253-984-1818 **Fax:** 253-984-1881
Purchase Order Number 30318

Name | City
Address | State | Zip
POC
Use This Box For Additional Billing Information (other than listed)

ANALYSIS REQUESTED

Client Sample ID	Date	Matrix	ORION ID	Asbestos: PLM Bulk	Asbestos: PCM Air	Asbestos: TEM (Specify)	Asbestos:	Total Metals: Lead	Total Metals: 8 RCRA	Total Metals:	Total Metals:	Hydrocarbons: WTPH-G	Hydrocarbons: WTPH-D	Hydrocarbons: WPTH-D (ext.)	Hydrocarbons: WTPH-HCID	Hydrocarbons: BTEX	Hydrocarbons: BTEX with WTPH-G	Hydrocarbons:	Hydrocarbons:	TCLP: Lead	TCLP: 8 RCRA	TCLP:	Other:	Other:	Other:	Other:	Other:	Other:
M-12			39	X																							
M-13			40	X																							
M-14			41	X																							
M-15			42	X																							
M-16			43	X																							
M-17			44	X																							
M-18			45	X																							
M-19			46	X																							
M-20			47	X																							
M-21			48	X																							
M-22			49	X																							

Instructions

1. Use one line per sample to be analyzed.
2. Place "X" in the box of the specific analysis to be performed. If analyte is not listed, write in specific request.
3. Check or list requested turnaround time for samples. Laboratory will rush all samples unless indicated otherwise.

Turnaroud Request

- ☐ Now
- ☐ Same Day
- ☐ 24 Hours
- ☐ 48 Hours
- ☐ 3 Days
- ☒ 5 Days
- ☐ 7 Days
- ☐ Other

Chain of Custody Seals

- ☐ Yes
- ☐ No
- ☐ N/A

Condition of Seals

Shipped VIA

- ☒ Hand ☐ Mailed
- ☐ Expressed
- ☐

Samples Relinquished By

Print: Robert J Guiley | Signature: Bob Guiley
Date: 3/18/03 | Time:

Samples Received By

Print: KLE | Signature: KLE
Date: 3/18/03 | Time: 0730

Comments

C[illegible] of C[illegible]ody [illegible] Sa[illegible]e In[illegible]ory [illegible]ord 2 of 3

Laboratory Work Identification Number: 030609

ORION Envi[illegible]enta[illegible] vices

34004 9th Avenue South, Building A Suite 5, Federal Way, Washington 98003-6740

Telephone Seattle - (253) 874-8118 Tacoma - (253) 952-6717 Facsimile (253) 927-4714

Client Name : Thermatech Northwest, Inc.
Address: 10312 Sales Road South
Lakewood, WA 98499

Attention: Bob Guiley Senior
Project Name: Mann Hall
Project Number : 030325

Telephone: 253-984-1818 **Fax:** 253-984-1881
Purchase Order Number 30318

Name | City
Address | State | Zip
POC
Use This Box For Additional Billing Information (other than listed)

ANALYSIS REQUESTED

Client Sample ID	Date	Matrix	ORION ID	Asbestos: PLM Bulk	Asbestos: PCM Air	Asbestos: TEM (Specify)	Asbestos:	Total Metals: Lead	Total Metals: 8 RCRA	Total Metals:	Total Metals:	Hydrocarbons: WTPH-G	Hydrocarbons: WTPH-D	Hydrocarbons: WPTH-D (ext.)	Hydrocarbons: WTPH-HCID	Hydrocarbons: BTEX	Hydrocarbons: BTEX with WTPH-G	Hydrocarbons:	Hydrocarbons:	TCLP: Lead	TCLP: 8 RCRA	TCLP:	Other:	Other:	Other:	Other:	Other:	Other:
M-23			50	X																							
M-24			51	X																							
M-25			52	X																							
M-26			53	X																							
M-27			54	X																							

Instructions

1. Use one line per sample to be analyzed.
2. Place "X" in the box of the specific analysis to be performed. If analyte is not listed, write in specific request.
3. Check or list requested turnaround time for samples. Laboratory will rush all samples unless indicated otherwise.

Turnaroud Request

- ☐ Now
- ☐ Same Day
- ☐ 24 Hours
- ☐ 48 Hours
- ☐ 3 Days
- ☒ 5 Days
- ☐ 7 Days
- ☐ Other

Chain of Custody Seals

- ☐ Yes
- ☐ No
- ☐ N/A

Condition of Seals

Shipped VIA

- ☒ Hand
- ☐ Mailed
- ☐ Expressed
- ☐

Samples Relinquished By

Print: Robert J Guiley | Signature: Bob Guiley
Date: 3/18/13 | Time:

Samples Received By

Print: KLE | Signature: [illegible]
Date: 3/18/13 | Time: 0736

Comments

Chain of Custody and Sample Inventory Record
Laboratory Work Identification Number:

OF DI nvir ntal ices
34004 9th Avenue South, Building A Suite 5, Federal Way, Washington 98003-6740
Telephone Seattle - (253) 874-8118 Tacoma - (253) 952-6717 Facsimile (253) 927-4714

Client Name : Thermatech Northwest, Inc.
Address: 10312 Sales Road South
Lakewood, WA 98499

Attention: Bob Guiley Senior
Project Name: Mann Hall
Project Number : 030325

Telephone: 253-984-1818 Fax: 253-984-1881
Purchase Order Number

Name
Address
City
State
Zip
POC
Use This Box For Additional Billing Information (other than listed)

ANALYSIS REQUESTED

Client Sample ID	Date	Matrix	ORION ID	Asbestos: PLM Bulk	Asbestos: PCM Air	Asbestos: TEM (Specify)	Asbestos	Total Metals: Lead	Total Metals: 8 RCRA	Total Metals	Total Metals	Hydrocarbons: WTPH-G	Hydrocarbons: WTPH-D	Hydrocarbons: WPTH-D (ext.)	Hydrocarbons: WTPH-HCID	Hydrocarbons: BTEX	Hydrocarbons: BTEX with WTPH-G	Hydrocarbons	Hydrocarbons	TCLP: Lead	TCLP: 8 RCRA	TCLP	Other	Other	Other	Other	Other	Other
M-28				X																								
M-29				X																								
M-30				X																								
M-31				X																								

Instructions
1. Use one line per sample to be analyzed.
2. Place "X" in the box of the specific analysis to be performed. If analyte is not listed, write in specific request.
3. Check or list requested turnaround time for samples. Laboratory will rush all samples unless indicated otherwise.

Turnaroud Request
- ☐ Now
- ☐ Same Day
- ☒ 24 Hours
- ☐ 48 Hours
- ☐ 3 Days
- ☐ 5 Days
- ☐ 7 Days
- ☐ Other

Chain of Custody Seals
- ☐ Yes
- ☐ No
- ☐ N/A

Condition of Seals

Shipped VIA
- ☒ Hand ☐ Mailed
- ☐ Expressed
- ☐

Samples Relinquished By
Print: Robert J Guiley
Signature:
Date: 3/25/03
Time:

Samples Received By
Print:
Signature:
Date:
Time:

Comments

Accession: 311467
Client: APPLIED GEOTECHNOLOGY INC
Project Number: 14340.201
Project Name: FORT LEWIS DEH/ASBESTOS
Project Location: SPOK MAIN HALL
Test: TOTAL FIBROUS ASBESTOS (%)
Matrix: BULK

Lab Id	Sample Date	Analysis Date	Client Sample Id
016	12-NOV-93 1445	19-NOV-93	SPK R0001-05A-T
017	12-NOV-93 1445	19-NOV-93	SPK R0001-05A-M
018	12-NOV-93 1330	19-NOV-93	SPK R0001-06A-T
019	12-NOV-93 1330	19-NOV-93	SPK R0001-06A-M
020	12-NOV-93 1340	19-NOV-93	SPK R0001-06B-T

Components	Laboratory Id: 016	017	018	019	020
CHRYSOTILE ASBESTOS (%)			15	20	
TOTAL FIBROUS ASBESTOS (%)	ND	ND	15	20	ND
RUBBEROID (%)	100				
MASTIC (%)		100		80	
TILE COMPONENTS (%)			85		
UNIFORMITY	U	U	U	U	
SAMPLE COLOR.	G	T	BR	B	

Remarks:

020 Client requested no analysis.

Accession: 311467
Client: APPLIED GEOTECHNOLOGY INC
Project Number: 14340.201
Project Name: FORT LEWIS DEH/ASBESTOS
Project Location: SPOK MAIN HALL
Test: TOTAL FIBROUS ASBESTOS (%)
Matrix: BULK

Lab Id	Sample Date	Analysis Date	Client Sample Id
021	12-NOV-93 1340	19-NOV-93	SPK R0001-06B-M
022	12-NOV-93 1355	19-NOV-93	SPK R0001-06C-T
023	12-NOV-93 1355	19-NOV-93	SPK R0001-06C-M
024	12-NOV-93 1305	19-NOV-93	SPK R0001-07A-T
025	12-NOV-93 1305	19-NOV-93	SPK R0001-07A-M

Components	Laboratory Id: 021	022	023	024	025
CHRYSOTILE ASBESTOS (%)				5	15
TOTAL FIBROUS ASBESTOS (%)	ND	ND	ND	5	15
TILE COMPONENTS (%)				95	
MASTIC (%)					85
SAMPLE COLOR.				B	B
UNIFORMITY				U	U

Remarks:

021 Client requested no analysis.
022 Client requested no analysis.
023 Client requested no analysis.

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 311467
Client: APPLIED GEOTECHNOLOGY INC
Project Number: 14340.201
Project Name: FORT LEWIS DEH/ASBESTOS
Project Location: SPOK MAIN HALL
Test: TOTAL FIBROUS ASBESTOS (%)
Matrix: BULK

Lab Id	Sample Date	Analysis Date	Client Sample Id
026	12-NOV-93 1310	19-NOV-93	SPK R0001-07B-T
027	12-NOV-93 1310	19-NOV-93	SPK R0001-07B-M
028	12-NOV-93 1450	19-NOV-93	SPK R0001-08A-T
029	12-NOV-93 1450	19-NOV-93	SPK R0001-08A-M
030	12-NOV-93 1455	19-NOV-93	SPK R0001-08B-T

Components	Laboratory Id: 026	027	028	029	030
CHRYSOTILE ASBESTOS (%)			3	15	
TOTAL FIBROUS ASBESTOS (%)	ND	ND	3	15	ND
TILE COMPONENTS (%)			97		
MASTIC (%)				85	
UNIFORMITY			U	U	
SAMPLE COLOR.			T	B	

Remarks:

026 Client requested no analysis.
027 Client requested no analysis.
030 Client requested no analysis.

Applied Geotechnology Inc.
Geotechnical Engineering
Geology & Hydrogeology

3114167

CHAIN-OF-CUSTODY

Date 11/12/93 Page 3 of 5

PROJECT INFORMATION

Project Manager: S. PEWOYKA
Project Name: FORT LEWIS DEH/ASBEST
Project Number: 14340.701
Site Location: SPUK / MANN HAL Sampled By: JMK

DISPOSAL INFORMATION

☐ Lab Disposal (return if not indicated)
Disposal Method:
Disposed by: Disposal Date:

QC INFORMATION (check one)

☐SW-846 ☐CLP ☐Screening ☐AGI Std. ☐Special

Laboratory Number:

ANALYSIS REQUEST

PETROLEUM HYDROCARBONS: TPH-ID State: · TPH-G State: · TPH-D State: · TPH Special Instructions · 418.1 State: · 8015M
ORGANIC COMPOUNDS: 8010 Halogenated VOCs · 8020 Aromatic VOCs · 8020M - BETX only · 8240 GCMS Volatiles · 8270 GCMS Semivol. · 8310 HPLC PAHs · 8040 Phenols · DWS - Volatiles and Semivol.
PESTS/PCB's: 8080 OC Pest/PCBs · 8080M PCBs only · 8140 OP Pesticides · 8150 OC Herbicides · DWS - Herb/pest
METALS: Selected metals: list · Total Lead (Wa) · Organic Lead (Ca) · TCL Metals (23) · Priority Poll. Metals (13) · DWS - Metals · MFSP - Metals (Wa)
LEACHING TESTS: TCLP - Volatiles (ZHE) · TCLP - Semivolatiles · TCLP - Pesticides · TCLP - Metals
OTHER: BULK ~~[illegible]~~ ASBESTOS

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	BULK ASBESTOS	NUMBER OF CONTAINERS
SPK - R0001 - 05AM	11/12	1445	ASBEST		X	1
SPK - R0001 - 06A-T	|	13:30	|		X	1
" " 06A-M	|	"	|		X	1
" " 06B T	|	1340	|		X	1
" " 06B M	|	"	|		X	1
" " 06C T	|	13:55	|		X	1
" " 06C M	|	"	|		X	1
" " 07A-T	|	13:05	|		X	1

LAB INFORMATION

Lab Name: ATI
Lab Address:
Via: COURIER
Turn Around Time: ☒ Standard ☐24 hr. ☐48 hr. ☐72 hr. ☐1 wk.
PRIOR AUTHORIZATION IS REQUIRED FOR RUSH DATA
Special Instructions:

SAMPLE RECEIPT

Total Number of Containers:
Chain of Custody Seals: Y/N/NA
Intact?: Y/N/NA
Received in Good Condition/Cold:

RELINQUISHED BY: 1. Signature: [signature] Time: 1215 Printed Name: J. AMBRUSE Date: 11/12 Company: AGI

RELINQUISHED BY: 2. Signature: Time: Printed Name: Date: Company:

RELINQUISHED BY: 3. Signature: Time: Printed Name: Date: Company:

RECEIVED BY: 1. Signature: [signature] Time: Printed Name: Date: 11/11/93 Company:

RECEIVED BY: 2. Signature: Time: Printed Name: Date: Company:

RECEIVED BY: 3. Signature: Time: Printed Name: Date: Company:

3[illegible]96

CHAIN-OF-[illegible]STODY

Date 11/12/93 Page 4 of 5

PROJECT INFORMATION

Project Manager: S. FENDYK
Project Name: ~~15/340. 201~~ FORT LEWIS
Project Number: 14340-201
Site Location: SPOK. MANN [illegible] Sampled By: JMA

DISPOSAL INFORMATION

☒ Lab Disposal (return if not indicated)
Disposal Method:
Disposed by: Disposal Date:

QC INFORMATION (check one)

☐ SW-846 ☐ CLP ☐ Screening ☐ AGI Std. ☐ Special

Laboratory Number: Q

ANALYSIS REQUEST

PETROLEUM HYDROCARBONS: TPH-ID State: / TPH-G State: / TPH-D State: / TPH Special Instructions / 418.1 State: / 8015M
ORGANIC COMPOUNDS: 8010 Halogenated VOCs / 8020 Aromatic VOCs / 8020M - BETX only / 8240 GCMS Volatiles / 8270 GCMS Semivol. / 8310 HPLC PAHs / 8040 Phenols / DWS - Volatiles and Semivol.
PESTS/PCB's: 8080 OC Pest/PCBs / 8080M PCBs only / 8140 OP Pesticides / 8150 OC Herbicides / DWS - Herb/pest
METALS: Selected metals: list / Total Lead (Wa) / Organic Lead (Ca) / TCL Metals (23) / Priority Poll. Metals (13) / DWS - Metals / MFSP - Metals (Wa)
LEACHING TESTS: TCLP - Volatiles (ZHE) / TCLP - Semivolatiles / TCLP - Pesticides / TCLP - Metals
OTHER: Bulk Asbestos
NUMBER OF CONTAINERS

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	Bulk Asbestos	NUMBER OF CONTAINERS
SPK-KOOL-07AM	11/12	1305	ASB		X	1
" " 07B[illegible]		1310			X	1
" " 07BM		"		1 Blank	X	1
" " 08A-[illegible]		1450			X	1
" " 08A-M		"			X	1
" " 08B-T		14:55		[illegible]	X	1
" " 08B-M		"			X	1
" " 08C-T		1458			X	1

LAB INFORMATION

Lab Name: ATI
Lab Address:
Via: COURIER

SAMPLE RECEIPT

Total Number of Containers:
Chain of Custody Seals: Y/N/NA
Intact?: Y/N/NA
Received in Good Condition/Cold:

Turn Around Time: ☒ Standard ☐ 24 hr. ☐ 48 hr. ☐ 72 hr. ☐ 1 wk.

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH DATA

Special Instructions:

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: [signature] Time: 1225	Signature: Time:	Signature: Time:
Printed Name: J. AMBROSE Date: 11/12	Printed Name: Date:	Printed Name: Date:
Company: AGI	Company:	Company:

RECEIVED BY: 1.	RECEIVED BY: 2.	RECEIVED BY: 3.
Signature: [signature] Time: [illegible]	Signature: Time:	Signature: Time:
Printed Name: [illegible] Date: 11/[illegible]	Printed Name: Date:	Printed Name: Date:
Company:	Company:	Company:

✓ WA32

THERMATECH NORTHWEST, INC.

GOOD FAITH ASBESTOS SURVEY

PREPARED FOR:

TROY ALEXANDER

Centennial Contractors, Inc.
PO Box 3277
Post Falls, ID 83877

10312 Sales Road South * Lakewood WA 98499 * Phone (253) 984-1818 * Fax: (253) 840 6752

LOCATION OF SURVEY:

4415 North Market Street
Spokane, WA 99207

TTNW #SV030325
Report Date: March 27, 2003

PERFORMED BY:

Robert J. Guiley
AHERA Certification #03-118
Expiration Date January 17, 2004

TABLE OF CONTENTS

SCOPE OF WORK

On March 17, 2003 Robert J Guiley conducted a "Good Faith" asbestos survey (per U.S.E.P.A / A.H.E.R.A. guidelines as designated by *Puget Sound Air Pollution Control Agency*) of the United States Army Reserve Center, known as Mann Hall, located at 4415 North Market Street, Spokane, WA 99207. Field inspection, data collection and report generation were based on the following Scope of Work:

- Perform visual inspection to identify and inventory all accessible suspect-asbestos containing materials.
- Bulk sampling and analysis of all identified suspect asbestos-containing materials.
- Provide written report.

The original facility was constructed In the 1950's, with an addition added in the 1970's. Since then the basement firing range in the main building has been replaced with offices. The motor pool offices have been remodeled within the last ten years. The main building is the facility headquarters with multiple classrooms, medical wing, storage areas, numerous offices and an assembly room. The motor pool has multiple offices, storage areas and vehicle service bays.

To date one other asbestos survey has been performed. AGI technologies performed an asbestos survey in 1993. Three of the confirmed samples from their survey are acknowledged in this survey.

BASIC CONSTRUCTION:

The structure is a two story, operating Army Reserve Center with basement. The exterior of the building is decorative brick over CMU building block. The roof is built-up roofing. The roof has been recently replaced. The windows are aluminum framed with single pane glass. The main lobby windows are built into a solid aluminum frame.

HEATING & VENTILATION SYSTEM:

A hot water heating system supplies heat to the building. The boiler room and piping have been abated. There may, however, be some pipe insulation in the walls. Care must be taken to watch for any pipe insulation when any destructive demolition is being done.

PLUMBING SYSTEM:
The plumbing system is a combination of galvanized and copper pipe. Some of the pipes are insulated with fiberglass.

ELECTRICAL SYSTEM:
The electrical system consists of single wire through conduit. There are several breaker boxes in the boiler room.

INTERIOR CONSRTUCTION, FINISHES & FLOORING:
The interior walls are a combination of painted building block and wallboard on metal and wood framing. The floors are covered with Vinyl tile. The floors of the second floor are hardwood. The processing room of the X-Ray department is finished with ceramic tile.

SAMPLE METHODS AND LABORATORY INFORMATION

A walk- through inspection of all areas was performed to identify which building materials may have the potential for containing asbestos.

After identifying the suspect asbestos-containing materials, bulk samples were collected, placed in plastic bags, numbered and recorded. Care was taken to clean all tools between sampling in order to avoid cross-contamination. The samples and appropriate chain of custody forms were then sent to Orion Laboratories to be analyzed for the type and content of asbestos, if any. The samples were analyzed using Polarized Light Microscopy (PLM) Stain Dispersion Technique in accordance with EPA METHOD 600/R-93/116

It must be noted that the structure surveyed is an operating military facility. Care was taken while collecting the samples to avoid being a hindrance to the operation. All areas requiring destructive sampling were sealed and encapsulated. Destructive methods were used to gain access to suspect materials, however there may be additional materials hidden in inaccessible and sensitive areas.

The following section contains tables listing all materials sampled by location, description, type, asbestos percentage (if any) category, and results of materials sampled.

ASBESTOS SAMPLE DATA

Project: 4415 North Market Street, Spokane, WA 99207

SV030325
March 27, 2003

Sample #	Location	Category	Description	Asbestos Type/%	Quantity Square Feet
M-1	Chaplain - 168/283	Non Friable	Pink Tile/Mastic	Chrysotile 3%	
M-2	Break Area -160-170	Non Friable	Cream, Tan Tile/Mastic	Chrysotile 2% <1% Tremolite	
M-3	Hall Medical Wing	Non Friable	Glue Dots	Chrysotile 3%	
M-4	Hall Medical Wing	Friable	Ceiling Tile	Non Detected	
M-5	Administration Area	Non Friable	Tan/Brown 12x12 Tile/Mastic	Chrysotile 2%	
M-6	Main Hall original Building	Friable	2'x4' Ceiling Panels	Non Detected	
M-7	Administration Area	Non Friable	Dark Brown Cove Base Mastic	Non Detected	
M-8	Equipment Room	Non Friable	Brown/Tan 12x12 Tile/Mastic	Non Detected	
M-9	Equipment Room	Friable	Vibration Damper	Chrysotile 40%	
M-10	Kitchen	Non Friable	Dark Brown Cove Base Mastic	Non Detected	
M-11	Training Room	Non Friable	Dark Brown Cove Base Mastic	Chrysotile 2% <1% Tremolite	
M-12	Assembly Hall	Non Friable	Dark Brown Cove Base Mastic	Chrysotile 2% <1% Tremolite	
M-13	Kitchen	Non Friable	Red Quarry Tile	Non Detected	

ASBESTOS SAMPLE DATA

Project: 4415 North Market Street, Spokane, WA 99207

SV030325
March 27, 2003

Sample #	Location	Category	Description	Asbestos Type/%	Quantity Square Feet
M-14	Assembly Hall	Non Friable	Paneling Mastic	Non Detected	
M-15	Mezzanine Windows	Non Friable	Glazing	Non Detected	
M-16	Training Room	Non Friable	GWB & Joint Compound	Non Detected	
M-17	Administration Area	Non Friable	GWB & Joint Compound	Non Detected	
M-18	Medical Area	Non Friable	GWB & Joint Compound	Non Detected	
M-19	Assembly Hall	Friable	Vibration Damper	Chrysotile 40 %	
M-20	Exterior Training Room Window	Non Friable	Black Caulking	Non Detected	
M-21	Exterior Training Room Window	Non Friable	Gray Caulking	Non Detected	
M-22	West Exit Door	Friable	Interior White Insulation	Non Detected	
M-23	X-Ray Processing Room	Non Friable	Dark Gray Grout	Non Detected	
M-24	X-Ray Processing Room	Non Friable	Tile Adhesive	Non Detected	
M-25	2nd Floor Supply Room	Non Friable	Slip Sheet Between Floors	Non Detected	
M-26	2nd Floor Men's Restroom	Non Friable	Glazing	Non Detected	

ASBESTOS SAMPLE DATA

Project: 4415 North Market Street, Spokane, WA 99207 **SV030325**
March 27, 2003

Sample #	Location	Category	Description	Asbestos Type/%	Quantity Square Feet
M-27	Main Shop	Friable	Pipe Insulation	Non Detected	
M-28	Motor Pool Oil Storage Area	Non Friable	GWB & Joint Compound	Non Detected	
M-29	Motor Pool Battery Storage Area	Non Friable	GWB & Joint Compound	Non Detected	
M-30	Motor Pool Offices & Rest Rooms	Non Friable	Off White 12x12 Tile	Non Detected	
M-31	Boiler Room	Friable	Pipe Insulation	Non Detected	
R001-06	Offices, Classroom, Equipment Room. Janitor Closet	Non Friable	Brown/White/Red Tile & Mastic	Chrysotile 15 % Chrysotile 20 %	
R001-07	X-ray & Hearing Test Room	Non Friable	Black Tile & Mastic	Chrysotile 5 % Chrysotile 15%	
R001-08	Medical Area	Non Friable	Off White/brown Tile & Mastic	Chrysotile 3% Chrysotile 15 %	

SUMMARY OF MATERIALS FOUND POSITIVE

Upon completion of the survey and review of the laboratory data, the following materials found contained asbestos at the structures located at, 4415 North Market Street, Spokane, WA 99207.

- **The brown-white-red 9x9 tile and mastic located in the offices, classroom, back portion of the equipment room and the janitor's closet in the hall of the main facility. (Sample #R001-06). (See Appendix D).**
- **The black tile & mastic located in the X-Ray room and the hearing test room of the medical wing. (Sample #R001-07). (See Appendix D).**
- **The off-white/brown tile & mastic located in the medical wing. (Sample #R001-08). (See Appendix D).**
- **The black mastic associated with the pink tile in the Chaplain's office. (Sample #M-1). (See Appendix D).**
- **The dark brown glue dots associated with the 12x12 ceiling tile located in the medical wing and west-portion of the main hall. There is also a small area in the hall to the stair descending to the basement. (Sample #M-3).**
- **The vibration dampers associated with the ventilation systems located in the assembly hall and the equipment room. (Sample #M-9, M-19).**
- **The dark brown cove base mastic located throughout the facility. (Sample #M-11, M-12).**
- **The black mastic associated with the tan-brown tile located in the administration area. (Sample M-5). (See Appendix D).**
- **No asbestos was found in the motor pool.**

DEFINITIONS

Asbestos means the asbestiform varieties of actinolite, amosite (cummingtonite-grunerite), tremolite, chrysotile (serpentinite), crocidolite (riebeckite), or anthophyllite.

Asbestos-Containing Material means any material containing more than one percent (1%) asbestos as determined using the method specified in EOA regulations (Polarized Light Microscopy).

Friable – materials that can be crumbled or reduced to powder by hand pressure.

Homogeneous Areas – an area which appears similar throughout in terms of color, texture, and date of materials application.

Miscellaneous Materials – interior building material on structural components, structural members of fixtures, such as floor and ceiling tiles, and does not include surfacing material or thermal system insulation (AHERA definition).

Surfacing Material – material that is sprayed-on, troweled- on, or otherwise applied to surfaces, such as acoustical plaster on ceilings, and fireproofing materials on structural members, or other materials o n surfaces for acoustical, fireproofing, or other purposes (AHERA definition).

Thermal System Insulation – means material applied to pipes, fittings, boilers, breeching, tanks, ducts or other interior structural components to prevent heat loss or gain, or water condensation, or for other purposes.

CONCLUSION

Abatement and disposal of asbestos-containing materials must be conducted by a Washington State Licensed Asbestos Abatement Contractor using Washington State Certified Asbestos Abatement Workers. Should employees or contract personnel encounter any suspect asbestos-containing materials, it is their responsibility to:

- Contact a representative of the owners.
- Consult the inspection report to determine whether or not the suspect material contains asbestos.
- Ensure that all employees and contractors are informed and advised of the location and type of materials that contain asbestos

Any additional hidden or covered suspect materials, discovered during demolition or renovation, that are similar to those identified in this survey must be treated as asbestos-containing materials unless determined otherwise by laboratory analysis.

A copy of this report should be kept on site during any asbestos abatement, renovation, or demolition.

Please contact the undersigned for any further assistance or if any questions or concerns arise relative to this report.

Sincerely,

Robert Guiley
AHERA Building Inspector

Appendix #A

INSPECTOR'S CERTIFICATION

Certificate of Completion

This is to certify that

Robert J. Guiley

has satisfactorily completed
4 hours of refresher training as a

Building Inspector

in compliance with TSCA Title II
AHERA Accredited
State of Missouri Training Provider # MO 00-10-025

Exam Date: January 17, 2003

Instructor: Robert Welch

Exp. Date: January 17, 2004

Prezant

THE NORTHWEST'S LEADING TRAINING ORGANIZATION

Cert. # 03-118
Conducted at:
Prezant Associates, Inc. Seattle, WA

Prezant Associates, Inc. • 330 Sixth Avenue North, Suite 200 • Seattle, Washington 98109 • (206) 281-8858

Appendix #B

FIELD DATA / LABORATORY RESULTS

THERMATECH NORTHWEST INC.
1711 6TH ST S.W.
Puyallup, WA 98371
PH: 253-984-1818 FAX: 253-984-1886

DATE: 3/17/2003
CLIENT: Troy Alexander
ADDRESS: Centennial Contractors Ent. Inc.
PO Box 3277
Post Falls, Idaho 83877

FIELD DATA SUMMARY

TTNW JOB#:BSSV030325
INSPECTOR: BOB GUILEY

SITE: NAME ADDRESS;

Mann Hall
4415 North Market Street
Spokane, WA 99207-5830

SAMPLE NO.	FLOOR	LOCATION	DESCRIPTION OF MATERIAL
M-1	1	Chaplin - 168/283	Pink Tile/Mastic
M-2	1	Break Area -160-170	Cream,Tan Tile/Mastic
M-3	1	Hall Medical Wing	Glue Dots
M-4	1	Hall Medical Wing	Ceiling Tile
M-5	1	Administration Area	Tan/Brown 12x12 Tile/Mastic
M-6	1	Main Hall original Building	2'x4' Ceiling Panels
M-7	1	Administration Area	Dark Brown Cove Base Mastic
M-8	1	Equipment Room	Brown/Tan 12x12 Tile/Mastic
M-9	1	Equipment Room	Vibration Damper
M-10	1	Kitchen	Dark Brown Cove Base Mastic
M-11	1	Training Room	Dark Brown Cove Base Mastic
M-12	1	Assembly Hall	Dark Brown Cove Base Mastic
M-13	1	Kitchen	Red Quarry Tile
M-14	1	Assembly Hall	Paneling Mastic
M-15	Exterior	Mezzanine Windows	Glazing
M-16	1	Training Room	GWB & Joint Compound
M-17	1	Administration Area	GWB & Joint Compound
M-18	1	Medical Area	GWB & Joint Compound
M-19	Mezz	Assembly Hall	Vibration Damper
M-20	Exterior	Exterior Training Room Window	Black Caulking
M-21	Exterior	Exterior Training Room Window	Gray Caulking
M-22	Door	West Exit Door	Interior White Insulation
M-23	1	X-Ray Processing Room	Dark Gray Grout
M-24	1	X-Ray Processing Room	Tile Adhesive
M-25	2	2nd Floor Supply Room	Slip Sheet Between Floors
M-26	2	2nd Floor Men's Restroom	Glazing
M-27	Shop	Main Shop	Pipe Insulation
M-28	Shop	Motor Pool Oil Storage Area	GWB & Joint Compound
M-29	Shop	Motor Pool Battery Storage Area	GWB & Joint Compound
M-30	Shop	Mpotr Pool Offices & Rest Rooms	Off White 12x12 Tile
M-31	1	Boiler Room	Pipe Insulation
R001-06	1	Offices, Classroom, Eqip. Rm. Jan Cl	Brown/White/Red Tile & Mastic
R001-07	1	X-ray & Hearing Test Room	Black Tile & Mastic
R001-08	1	Medical Area	Off White/brown Tile & Mastic

Orion Environmental Services

34004 9th Avenue South ♦ Building A Suite 5 ♦ Federal Way, Washington 98003-6740
VBE W2F5912535 Telephone Seattle (253) 874-8118 ♦ Tacoma (253) 952-6717 ♦ Facsimile (253) 927-4714 ♦ email ORION6717@aol

Polarized Light Microscopy Test Report
EPA Method 600/R-98/116

Client Thermatech Northwest Inc.
10312 Sales Road South
Lakewood, WA 98449

Date March 25, 2003
Page Page 1 of 4
Invoice 030669
Date Received March 18, 2003

Project Number 03-0325
Project Name Mann Hall

Client Number	Orion Number	Stereo Scope Exam	Sample Treatment	Asbestos Percent	Asbestos Type	Other Fibers
M-01a	30318-28a	Pink Vinyl Tile Homogeneous	Ash	ND	-	-
M-01b	**30318-28b**	**Mastic Assoc. w/ M-01a**	**Chloroform**	**3**	**Chrysotile**	**Cellulose**
M-02a	30318-29a	Cream Vinyl Tile Homogeneous	Ash	ND	-	-
M-02b	30318-29b	Mastic Assoc. w/ M-02a	Chloroform	ND	-	Cellulose
M-03	**30318-30**	**Glue Dots Homogeneous**	**Chloroform**	**2** <1	**Chrysotile** Tremolite	**Cellulose**
M-04	30318-31	Ceiling Tile Homogeneous	Ash	ND	-	Cellulose Fiberglass
M-05a	30318-32a	Tan / Brown Vinyl Tile Homogeneous	Ash	ND	-	-
M-05b	**30318-32b**	**Mastic Assoc. w/ M-05a**	**Chloroform**	**2**	**Chrysotile**	**Cellulose**
M-06	30318-33	Ceiling Panel Homogeneous	Ash	ND	-	Cellulose
M-07	30318-34	Cove Base Mastic Homogeneous	Chloroform	ND	-	Cellulose
M-08a	30318-35a	Brown / Tan Vinyl Tile Homogeneous	Ash	ND	-	-
M-08b	30318-35b	Mastic Assoc. w/ M-08a	Chloroform	ND	-	Cellulose
M-09	**30318-36**	**Vibration Damper Homogeneous**	-	**40**	**Chrysotile**	**Cellulose**

Orion Environmental Services

VBE W2F5912535

34004 9th Avenue South ♦ Building A Suite 5 ♦ Federal Way, Washington 98003-6740
Telephone Seattle (253) 874-8118 ♦ Tacoma (253) 952-6717 ♦ Facsimile (253) 927-4714 ♦ email ORION6717@aol

Polarized Light Microscopy Test Report
EPA Method 600/R-98/116

Client Thermatech Northwest Inc.
10312 Sales Road South
Lakewood, WA 98449

Date March 25, 2003
Page Page 2 of 4
Invoice 030669
Date Received March 18, 2003

Project Number 03-0325
Project Name Mann Hall

Client Number	Orion Number	Stereo Scope Exam	Sample Treatment	Asbestos Percent	Asbestos Type	Other Fibers
M-10	30318-37	Dark Brown Cove Base Mastic Homogeneous	Chloroform	ND	-	Cellulose
M-11	30318-38	Cove Base Mastic Homogeneous	Chloroform	2 <1	Chrysotile Tremolite	Cellulose
M-12	30318-39	Cove Base Mastic Homogeneous	Chloroform	2 <1	Chrysotile Tremolite	Cellulose
M-13	30318-40	Quary Tile Homogeneous	Crush	MD	-	-
M-14	30318-41	Paneling Glue Homogeneous	Chloroform	ND	-	Cellulose
M-15	30318-42	Glazing Homogeneous	-	ND	-	-
M-16a	30318-43a	Joint Compound Assoc. w/ M-16b	-	ND	-	Cellulose
M-16b	30318-43b	Wallboard Homogeneous	-	ND	-	Cellulose
M-17a	30318-44a	Joint Compound Assoc. w/ M-17b	-	ND	-	Cellulose
M-17b	30318-44b	Wallboard Homogeneous	-	ND	-	Cellulose
M-18a	30318-45a	Joint Compound Assoc. w/ M-18b	-	ND	-	Cellulose
M-18b	30318-45b	Wallboard Homogeneous	-	ND	-	Cellulose

Orion Environmental Services

/BE W2F5912535

34004 9th Avenue South ♦ Building A Suite 5 ♦ Federal Way, Washington 98003-6740
Telephone Seattle (253) 874-8118 ♦ Tacoma (253) 952-6717 ♦ Facsimile (253) 927-4714 ♦ email ORION6717@aol

Polarized Light Microscopy Test Report
EPA Method 600/R-98/116

Client Thermatech Northwest Inc.
10312 Sales Road South
Lakewood, WA 98449

Date March 25, 2003
Page Page 3 of 4
Invoice 030669
Date Received March 18, 2003

Project Number 03-0325
Project Name Mann Hall

Client Number	Orion Number	Stereo Scope Exam	Sample Treatment	Asbestos Percent	Asbestos Type	Other Fibers
M-19	30318-46	Vibration Damper Homogeneous	-	40	Chrysotile	Cellulose
M-20	30318-47	Black Caulking Homogeneous	-	ND	-	-
M-21	30318-48	Gray Caulking Homogeneous	-	ND	-	-
M-22	30318-49	Door Insulation Homogeneous	-	ND	-	-
M-23	30318-50	Dark Gray Grout Homogeneous	Crush	ND	-	-
M-24	30318-51	Tile Adhesive Homogeneous	Chloroform	ND	-	Cellulose
M-25	30318-52	Slip Sheeting Homogeneous	Ash	ND	-	Cellulose
M-26	30318-53	Glazing Homogeneous	-	ND	-	Cellulose

Orion Environmental Services

34004 9th Avenue South • Building A Suite 5 • Federal Way, Washington 98003-6740
BE W2F5912535 Telephone Seattle (253) 874-8118 • Tacoma (253) 952-6717 • Facsimile (253) 927-4714 • email ORION6717@aol

Polarized Light Microscopy Test Report
EPA Method 600/R-98/116

Client Thermatech Northwest Inc.
10312 Sales Road South
Lakewood, WA 98449

Date March 26, 2003
Page Page 1 of 1
Invoice 030744
Date Received March 26, 2003

Project Number 03-0325
Project Name Mann Hall

Client Number	Orion Number	Stereo Scope Exam	Sample Treatment	Asbestos Percent	Asbestos Type	Other Fibers
M-28a	30326-16a	Joint Compound Assoc. w/ M-28b	-	ND	-	Cellulose
M-28b	30326-16b	Wallboard Homogeneous	-	ND	-	Cellulose
M-29a	30326-17a	Joint Compound Assoc. w/ M-28b	-	ND	-	Cellulose
M-29b	30326-17b	Wallboard Homogeneous	-	ND	-	Cellulose
M-30	30326-18	Off-White Vinyl Tile Homogeneous	Ash	ND	-	-
M-31	30326-19	Pipe Insulation Homogeneous	-	ND	-	Fiberglass

Dup: Laboratory QA/QC Duplicate; M; Mastic [(a), (b), (c), etc.]: Sample layers numbered from front to back.
Comments: For layered samples, each component has been analyzed separately. ND means non-detect for asbestos fibers by EPA Method 600/R-98/116.
Disclaimers: PLM has been known to miss asbestos in a small percentage of samples that contain asbestos. Thus negative PLM results cannot be guaranteed.
This report may only be reproduced in full with written approval of ORION Environmental Services.
Orion samples are analyzed according to EPA Method 600/R-98/116 by AIHA Bulk Asbestos Analytical Testing Program (102911) proficient analysts.

Reviewed By DMcNeal/ko
Donna McNeal
Laboratory Director

Leading Environmental Compliance Consulting Into the 21st Century

Cl of C ody Sar Inv ory l rd

Laboratory Work Identification Number: 030609 2 of 3

ORION Envi enta vices
34004 9th Avenue South, Building A Suite 5, Federal Way, Washington 98003-6740
Telephone Seattle - (253) 874-8118 Tacoma - (253) 952-6717 Facsimile (253) 927-4714

Client Name : Thermatech Northwest, Inc.
Address: 10312 Sales Road South
Lakewood, WA 98499

Attention: Bob Guiley Senior
Project Name: Mann Hall
Project Number : 030325

Telephone: 253-984-1818 **Fax:** 253-984-1881
Purchase Order Number 30318

Name | City
Address | State | Zip
POC
Use This Box For Additional Billing Information (other than listed)

ANALYSIS REQUESTED

Client Sample ID	Date	Matrix	ORION ID	Asbestos: PLM Bulk	Asbestos: PCM Air	Asbestos: TEM (Specify)	Asbestos:	Total Metals: Lead	Total Metals: 8 RCRA	Total Metals:	Total Metals:	Hydrocarbons: WTPH-G	Hydrocarbons: WTPH-D	Hydrocarbons: WPTH-D (ext.)	Hydrocarbons: WTPH-HCID	Hydrocarbons: BTEX	Hydrocarbons: BTEX with WTPH-G	Hydrocarbons:	Hydrocarbons:	TCLP: Lead	TCLP: 8 RCRA	TCLP:	Other:	Other:	Other:	Other:	Other:	Other:
M-12			39	X																							
M-13			40	X																							
M-14			41	X																							
M-15			42	X																							
M-16			43	X																							
M-17			44	X																							
M-18			45	X																							
M-19			46	X																							
M-20			47	X																							
M-21			48	X																							
M-22			49	X																							

Instructions

1. Use one line per sample to be analyzed.
2. Place "X" in the box of the specific analysis to be performed. If analyte is not listed, write in specific request.
3. Check or list requested turnaround time for samples. Laboratory will rush all samples unless indicated otherwise.

Turnaroud Request

- ☐ Now
- ☐ Same Day
- ☐ 24 Hours
- ☐ 48 Hours
- ☐ 3 Days
- ☒ 5 Days
- ☐ 7 Days
- ☐ Other

Chain of Custody Seals

- ☐ Yes
- ☐ No
- ☐ N/A

Condition of Seals

Shipped VIA

- ☒ Hand ☐ Mailed
- ☐ Expressed
- ☐

Samples Relinquished By

Print: Robert J Guiley | Signature: Bob Guiley
Date: 3/18/03 | Time:

Samples Received By

Print: KLE | Signature: KLE
Date: 3/18/03 | Time: 0730

Comments

C[illegible] of C[illegible]ody [illegible] Sa[illegible]e In[illegible]ory [illegible]ord 2 of 3

Laboratory Work Identification Number: 030609

ORION Envi[illegible]enta[illegible] vices

34004 9th Avenue South, Building A Suite 5, Federal Way, Washington 98003-6740

Telephone Seattle - (253) 874-8118 Tacoma - (253) 952-6717 Facsimile (253) 927-4714

Client Name : Thermatech Northwest, Inc.
Address: 10312 Sales Road South
Lakewood, WA 98499

Attention: Bob Guiley Senior
Project Name: Mann Hall
Project Number : 030325

Telephone: 253-984-1818 **Fax:** 253-984-1881
Purchase Order Number 30318

Name | City
Address | State | Zip
POC
Use This Box For Additional Billing Information (other than listed)

ANALYSIS REQUESTED

Client Sample ID	Date	Matrix	ORION ID	Asbestos: PLM Bulk	Asbestos: PCM Air	Asbestos: TEM (Specify)	Asbestos:	Total Metals: Lead	Total Metals: 8 RCRA	Total Metals:	Total Metals:	Hydrocarbons: WTPH-G	Hydrocarbons: WTPH-D	Hydrocarbons: WPTH-D (ext.)	Hydrocarbons: WTPH-HCID	Hydrocarbons: BTEX	Hydrocarbons: BTEX with WTPH-G	Hydrocarbons:	Hydrocarbons:	TCLP: Lead	TCLP: 8 RCRA	TCLP:	Other:	Other:	Other:	Other:	Other:	Other:
M-23			50	X																							
M-24			51	X																							
M-25			52	X																							
M-26			53	X																							
M-27			54	X																							

Instructions

1. Use one line per sample to be analyzed.
2. Place "X" in the box of the specific analysis to be performed. If analyte is not listed, write in specific request.
3. Check or list requested turnaround time for samples. Laboratory will rush all samples unless indicated otherwise.

Turnaroud Request

- ☐ Now
- ☐ Same Day
- ☐ 24 Hours
- ☐ 48 Hours
- ☐ 3 Days
- ☒ 5 Days
- ☐ 7 Days
- ☐ Other

Chain of Custody Seals

- ☐ Yes
- ☐ No
- ☐ N/A

Condition of Seals

Shipped VIA

- ☒ Hand
- ☐ Mailed
- ☐ Expressed
- ☐

Samples Relinquished By

Print: Robert J Guiley | Signature: Bob Guiley
Date: 3/18/13 | Time:

Samples Received By

Print: KLE | Signature: [illegible]
Date: 3/18/13 | Time: 0736

Comments

Chain of Custody and Sample Inventory Record
Laboratory Work Identification Number:

OF DI nvir ntal ices
34004 9th Avenue South, Building A Suite 5, Federal Way, Washington 98003-6740
Telephone Seattle - (253) 874-8118 Tacoma - (253) 952-6717 Facsimile (253) 927-4714

Client Name : Thermatech Northwest, Inc.
Address: 10312 Sales Road South
Lakewood, WA 98499

Attention: Bob Guiley Senior
Project Name: Mann Hall
Project Number : 030325

Telephone: 253-984-1818 Fax: 253-984-1881
Purchase Order Number

Name
Address
City
State
Zip
POC
Use This Box For Additional Billing Information (other than listed)

ANALYSIS REQUESTED

Client Sample ID	Date	Matrix	ORION ID	Asbestos: PLM Bulk	Asbestos: PCM Air	Asbestos: TEM (Specify)	Asbestos	Total Metals: Lead	Total Metals: 8 RCRA	Total Metals	Total Metals	Hydrocarbons: WTPH-G	Hydrocarbons: WTPH-D	Hydrocarbons: WPTH-D (ext.)	Hydrocarbons: WTPH-HCID	Hydrocarbons: BTEX	Hydrocarbons: BTEX with WTPH-G	Hydrocarbons	Hydrocarbons	TCLP: Lead	TCLP: 8 RCRA	TCLP	Other	Other	Other	Other	Other	Other
M-28				X																								
M-29				X																								
M-30				X																								
M-31				X																								

Instructions
1. Use one line per sample to be analyzed.
2. Place "X" in the box of the specific analysis to be performed. If analyte is not listed, write in specific request.
3. Check or list requested turnaround time for samples. Laboratory will rush all samples unless indicated otherwise.

Turnaroud Request
- ☐ Now
- ☐ Same Day
- ☒ 24 Hours
- ☐ 48 Hours
- ☐ 3 Days
- ☐ 5 Days
- ☐ 7 Days
- ☐ Other

Chain of Custody Seals
- ☐ Yes
- ☐ No
- ☐ N/A

Condition of Seals

Shipped VIA
- ☒ Hand ☐ Mailed
- ☐ Expressed
- ☐

Samples Relinquished By
Print: Robert J Guiley
Signature:
Date: 3/25/03
Time:

Samples Received By
Print:
Signature:
Date:
Time:

Comments

Accession: 311467
Client: APPLIED GEOTECHNOLOGY INC
Project Number: 14340.201
Project Name: FORT LEWIS DEH/ASBESTOS
Project Location: SPOK MAIN HALL
Test: TOTAL FIBROUS ASBESTOS (%)
Matrix: BULK

Lab Id	Sample Date	Analysis Date	Client Sample Id
016	12-NOV-93 1445	19-NOV-93	SPK R0001-05A-T
017	12-NOV-93 1445	19-NOV-93	SPK R0001-05A-M
018	12-NOV-93 1330	19-NOV-93	SPK R0001-06A-T
019	12-NOV-93 1330	19-NOV-93	SPK R0001-06A-M
020	12-NOV-93 1340	19-NOV-93	SPK R0001-06B-T

Components	Laboratory Id: 016	017	018	019	020
CHRYSOTILE ASBESTOS (%)			15	20	
TOTAL FIBROUS ASBESTOS (%)	ND	ND	15	20	ND
RUBBEROID (%)	100				
MASTIC (%)		100		80	
TILE COMPONENTS (%)			85		
UNIFORMITY	U	U	U	U	
SAMPLE COLOR.	G	T	BR	B	

Remarks:

020 Client requested no analysis.

Accession: 311467
Client: APPLIED GEOTECHNOLOGY INC
Project Number: 14340.201
Project Name: FORT LEWIS DEH/ASBESTOS
Project Location: SPOK MAIN HALL
Test: TOTAL FIBROUS ASBESTOS (%)
Matrix: BULK

Lab Id	Sample Date	Analysis Date	Client Sample Id
021	12-NOV-93 1340	19-NOV-93	SPK R0001-06B-M
022	12-NOV-93 1355	19-NOV-93	SPK R0001-06C-T
023	12-NOV-93 1355	19-NOV-93	SPK R0001-06C-M
024	12-NOV-93 1305	19-NOV-93	SPK R0001-07A-T
025	12-NOV-93 1305	19-NOV-93	SPK R0001-07A-M

Components	Laboratory Id: 021	022	023	024	025
CHRYSOTILE ASBESTOS (%)				5	15
TOTAL FIBROUS ASBESTOS (%)	ND	ND	ND	5	15
TILE COMPONENTS (%)				95	
MASTIC (%)					85
SAMPLE COLOR.				B	B
UNIFORMITY				U	U

Remarks:

021 Client requested no analysis.
022 Client requested no analysis.
023 Client requested no analysis.

ANALYTICAL TECHNOLOGIES, INC. 11 East Olive Road Pensacola, Florida 32514 (904) 474-1001

Accession: 311467
Client: APPLIED GEOTECHNOLOGY INC
Project Number: 14340.201
Project Name: FORT LEWIS DEH/ASBESTOS
Project Location: SPOK MAIN HALL
Test: TOTAL FIBROUS ASBESTOS (%)
Matrix: BULK

Lab Id	Sample Date	Analysis Date	Client Sample Id
026	12-NOV-93 1310	19-NOV-93	SPK R0001-07B-T
027	12-NOV-93 1310	19-NOV-93	SPK R0001-07B-M
028	12-NOV-93 1450	19-NOV-93	SPK R0001-08A-T
029	12-NOV-93 1450	19-NOV-93	SPK R0001-08A-M
030	12-NOV-93 1455	19-NOV-93	SPK R0001-08B-T

Components	Laboratory Id: 026	027	028	029	030
CHRYSOTILE ASBESTOS (%)			3	15	
TOTAL FIBROUS ASBESTOS (%)	ND	ND	3	15	ND
TILE COMPONENTS (%)			97		
MASTIC (%)				85	
UNIFORMITY			U	U	
SAMPLE COLOR.			T	B	

Remarks:

026 Client requested no analysis.
027 Client requested no analysis.
030 Client requested no analysis.

Applied Geotechnology Inc.
Geotechnical Engineering
Geology & Hydrogeology

314467

CHAIN-OF-CUSTODY

Date 11/12/93 Page 3 of 5

PROJECT INFORMATION

Project Manager: S. PEWOYRU
Project Name: FORT LEWIS ACH/ASBEST
Project Number: 14340.701
Site Location: SPUK / MAMN HAL Sampled By: JMK

DISPOSAL INFORMATION

☐ Lab Disposal (return if not indicated)
Disposal Method:
Disposed by: Disposal Date:

QC INFORMATION (check one)

☐SW-846 ☐CLP ☐Screening ☐AGI Std. ☐Special

Laboratory Number:

ANALYSIS REQUEST

PETROLEUM HYDROCARBONS: TPH-ID State: | TPH-G State: | TPH-D State: | TPH Special Instructions | 418.1 State: | 8015M
ORGANIC COMPOUNDS: 8010 Halogenated VOCs | 8020 Aromatic VOCs | 8020M - BETX only | 8240 GCMS Volatiles | 8270 GCMS Semivol. | 8310 HPLC PAHs | 8040 Phenols | DWS - Volatiles and Semivol.
PESTS/PCB's: 8080 OC Pest/PCBs | 8080M PCBs only | 8140 OP Pesticides | 8150 OC Herbicides | DWS - Herb/pest
METALS: Selected metals: list | Total Lead (Wa) | Organic Lead (Ca) | TCL Metals (23) | Priority Poll. Metals (13) | DWS - Metals | MFSP - Metals (Wa)
LEACHING TESTS: TCLP - Volatiles (ZHE) | TCLP - Semivolatiles | TCLP - Pesticides | TCLP - Metals
OTHER: BULK ASBESTOS

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	OTHER: BULK ASBESTOS	NUMBER OF CONTAINERS
SPK-R0001-05AM	11/12	1445	ASBEST		X	1
SPK-R0001-06A-T	〃	13:30	〃		X	1
" " 06A-M	〃	"	〃		X	1
" " 06B T	〃	1340	〃		X	1
" " 06B M	〃	"	〃		X	1
" " 06C T	〃	13:55	〃		X	1
" " 06C M	〃	"	〃		X	1
" " 07A-T	〃	13:05	〃		X	1

LAB INFORMATION

Lab Name: ATI
Lab Address:
Via: COURIER
Turn Around Time: ☒ Standard ☐24 hr. ☐48 hr. ☐72 hr. ☐1 wk.

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH DATA

Special Instructions:

SAMPLE RECEIPT

Total Number of Containers:
Chain of Custody Seals: Y/N/NA
Intact?: Y/N/NA
Received in Good Condition/Cold:

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: [signature] Time: 1215	Signature: Time:	Signature: Time:
Printed Name: J. AMBRUSE Date: 11/12	Printed Name: Date:	Printed Name: Date:
Company: AGI	Company:	Company:

RECEIVED BY: 1.	RECEIVED BY: 2.	RECEIVED BY: 3.
Signature: [signature] Time:	Signature: Time:	Signature: Time:
Printed Name: Date: 11/18	Printed Name: Date:	Printed Name: Date:
Company:	Company:	Company:

Ap[illegible] Ge[illegible]hno[illegible], Inc.
Geotechnical Engineering
Geology & Hydrogeology

3 [illegible]

CHAIN-OF-[illegible]STODY

Date 11/12/93 Page 4 of 5

PROJECT INFORMATION

Project Manager: S. FENDYK
Project Name: ~~T&S/340. 201~~ FORT LEWIS
Project Number: 14340-201
Site Location: SPOK. MANN [illegible] Sampled By: JMA

DISPOSAL INFORMATION

☒ Lab Disposal (return if not indicated)
Disposal Method:
Disposed by: Disposal Date:

QC INFORMATION (check one)

☐SW-846 ☐CLP ☐Screening ☐AGI Std. ☐Special

Laboratory Number:

ANALYSIS REQUEST

PETROLEUM HYDROCARBONS: TPH-ID State: / TPH-G State: / TPH-D State: / TPH Special Instructions / 418.1 State: / 8015M
ORGANIC COMPOUNDS: 8010 Halogenated VOCs / 8020 Aromatic VOCs / 8020M - BETX only / 8240 GCMS Volatiles / 8270 GCMS Semivol. / 8310 HPLC PAHs / 8040 Phenols / DWS - Volatiles and Semivol.
PESTS/PCB's: 8080 OC Pest/PCBs / 8080M PCBs only / 8140 OP Pesticides / 8150 OC Herbicides / DWS - Herb/pest
METALS: Selected metals: list / Total Lead (Wa) / Organic Lead (Ca) / TCL Metals (23) / Priority Poll. Metals (13) / DWS - Metals / MFSP - Metals (Wa)
LEACHING TESTS: TCLP - Volatiles (ZHE) / TCLP - Semivolatiles / TCLP - Pesticides / TCLP - Metals
OTHER: BULK ASBESTOS
NUMBER OF CONTAINERS

SAMPLE ID	DATE	TIME	MATRIX	LAB ID	BULK ASBESTOS	NUMBER OF CONTAINERS
SPK-(Kool-07AM)	11/12	1305	ASB		X	1
" " 07B[illegible]		1310			X	1
" " 07BM		"		/ Black	X	1
" (-) " 08A-[illegible]		1450			X	1
" (-) " 08A-M		"			X	1
" " 08B-T		14:55		on [illegible]	X	1
" " 08B-M		"			X	1
" " 08C-T		1458			X	1

LAB INFORMATION

Lab Name: ATI
Lab Address:
Via: COURIER

SAMPLE RECEIPT

Total Number of Containers:
Chain of Custody Seals: Y/N/NA
Intact?: Y/N/NA
Received in Good Condition/Cold:

Turn Around Time: ☒Standard ☐24 hr. ☐48 hr. ☐72 hr. ☐1 wk.

PRIOR AUTHORIZATION IS REQUIRED FOR RUSH DATA

Special Instructions:

RELINQUISHED BY: 1.	RELINQUISHED BY: 2.	RELINQUISHED BY: 3.
Signature: [signature] Time: 1225	Signature: Time:	Signature: Time:
Printed Name: J. AMBROSE Date: 11/12	Printed Name: Date:	Printed Name: Date:
Company: AGI	Company:	Company:

RECEIVED BY: 1.	RECEIVED BY: 2.	RECEIVED BY: 3.
Signature: [signature] Time: 16:30	Signature: Time:	Signature: Time:
Printed Name: Date: 11/12/93	Printed Name: Date:	Printed Name: Date:
Company:	Company:	Company:

APPENDIX B

Photograph Log

Photograph 1 – Sample WA021-01

Photograph 2 – Sample WA032-02

Photograph 3 – Sample WA032-03

Photograph 4 – Thermal System Insulation (Assumed ACM)

Photograph 5 – Thermal System Insulation (Assumed ACM)

APPENDIX C

Inspector’s Certification

Environmental Management Institute

5610 Crawfordsville Rd # 1500, Indianapolis, Indiana 46224-3787

317/248-4848 • 800/488-8842 • FAX 317/248-4846
www.envmgt.org

This confirms that

Craig A Coombs

Completed the Required Refresher Training for
Asbestos Accreditation Under TSCA Title II
and has
passed with a Score of 70 or Greater the Examination for

Asbestos Building Inspector

Course Date
November 21, 2013

Examination Date
November 21, 2013

Jack E. Leonard, President

Certificate: IN(R) 7466

Expires: November 21, 2014

Approved by:: Illinois Department of Public Health
Indiana Department of Environmental Management

APPENDIX D

Bulk Sample Log

Table 1
Bulk Sample Log
WA032 PFC Joe E. Mann USARC, Spokane, Washington

HA	Sample No.	Date	Material Description	Bldg.[1]	Estimated Quantity	Condition[2]	Friable/ Non-Friable	Analytical Result (% asb.)
	SPK-R0001-01 A SPK-R0001-01 B SPK-R0001-01 C SPK-R0001-01 D SPK-R0001-01 E	11/10/93	White 12" x 12" Ceiling Tile	1	6995 sf	Damaged	NR	ND
	SPK-R0001-02 A-M SPK-R0001-02 A-T SPK-R0001-02 B-M SPK-R0001-02 B-T SPK-R0001-02 C-M SPK-R0001-02 C-T	11/10/93	White 12" x 12" Floor Tile with tan mastic	1	1710	Good	Non-Friable	<1%[3]
	SPK-R0001-03 A-M SPK-R0001-03 A-T SPK-R0001-03 B-M SPK-R0001-03 B-T SPK-R0001-03 C-M SPK-R0001-03 C-T	11/10/93	Brown-red cove base with brown mastic	1	4000	Good	Non-Friable	<1%
	SPK-R0001-04 A-M SPK-R0001-04 A-T SPK-R0001-04 B-M SPK-R0001-04 B-T SPK-R0001-04 C-M SPK-R0001-04 C-T	11/10/93	Black cove base with brown mastic	1	7000 lf	Good	Non-Friable	ND
	SPK-R0001-05 A-M SPK-R0001-05 A-T SPK-R0001-05 B-M SPK-R0001-05 B-T SPK-R0001-05 C-M SPK-R0001-05 C-T	11/10/93	Green cove base with tan mastic	1	176 lf	Good	Non-Friable	ND
	SPK-R0001-06 A-M SPK-R0001-06 A-T SPK-R0001-06 B-M SPK-R0001-06 B-T SPK-R0001-06 C-M SPK-R0001-06 C-T	11/10/93	Brown 9"x9" floor tile (90% brown, 5% red, 5% white) with black mastic	1	1350 sf	Good	Non-Friable	20%
	SPK-R0001-07 A-M SPK-R0001-07 A-T SPK-R0001-07 B-M SPK-R0001-07 B-T SPK-R0001-07 C-M SPK-R0001-07 C-T	11/10/93	Black 12"x12" floor tile with black mastic	1	220 sf	Good	Non-Friable	15%
	SPK-R001-08 A-M SPK-R001-08 A-T SPK-R001-08 B-M SPK-R001-08 B-T SPK-R001-08 C-M SPK-R001-08 C-T	11/10/93	Off-white 12"x12" floor tile (90% off-white, 10% brown) with black mastic	1	5300 sf	Good	Non-Friable	15%
	M-1	03/27/03	Pink Tile/Mastic	1	NR	Good	Non-Friable	3%
	M-2	03/27/03	Cream, Tan Tile/Mastic	1	NR	Good	Non-Friable	2%
	M-3	03/27/03	Glue Dots	1	NR	Good	Non-Friable	3%
	M-4	03/27/03	Ceiling Tile	1	NR	Damaged	Friable	ND

Table 1
Bulk Sample Log
WA032 PFC Joe E. Mann USARC, Spokane, Washington

HA	Sample No.	Date	Material Description	Bldg.[1]	Estimated Quantity	Condition[2]	Friable/ Non-Friable	Analytical Result (% asb.)
	M-5	03/27/03	Tan/Brown 12x12 Tile/Mastic	1	NR	Good	Non-Friable	2%
	M-6	03/27/03	2'x4' Celing Panels	1	NR	Damaged	Friable	ND
	M-7	03/27/03	Dark Brown Cove Base Mastic	1	NR	Good	Non-Friable	ND
	M-8	03/27/03	Brown/Tan 12x12 Tile/Mastic	1	NR	Good	Non-Friable	ND
	M-9	03/27/03	Vibration Damper (Equipment Room)	1	1 ea	Good	Friable	40%
	M-10	03/27/03	Dark Brown Cove Base Mastic (Kitchen)	1	NR	Good	Non-Friable	ND
	M-11	03/27/03	Dark Brown Cove Base Mastic (Training Room)	1	NR	Good	Non-Friable	2%
	M-12	03/27/03	Dark Brown Cove Base Mastic (Assembly Hall)	1	NR	Good	Non-Friable	2%
	M-13	03/27/03	Red Quarry Tile	1	NR	Good	Non-Friable	ND
	M-14	03/27/03	Paneling Mastic	1	NR	Good	Non-Friable	ND
	M-15	03/27/03	Glazing (mezzanine windows)	1	NR	Good	Non-Friable	ND
	M-16	03/27/03	GWB & Joint Compound (Training Room)	1	NR	Damaged	Non-Friable	ND
	M-17	03/27/03	GWB & Joint Compound (Adminsitration Area)	1	NR	Damaged	Non-Friable	ND
	M-18	03/27/03	GWB & Joint Compound (Medical Area)	1	NR	Damaged	Non-Friable	ND
	M-19	03/27/03	Vibration Damper (Assembly Hall)	1	1 ea	Good	Friable	40%
	M-20	03/27/03	Black Caulking	1	NR	Good	Non-Friable	ND
	M-21	03/27/03	Gray Caulking	1	NR	Good	Non-Friable	ND
	M-22	03/27/03	Interior White Insulation (west exit door)	1	NR	Good	Friable	ND
	M-23	03/27/03	Dark Gray Grout	1	NR	Good	Non-Friable	ND
	M-24	03/27/03	Tile Adhesive	1	NR	Good	Non-Friable	ND
	M-25	03/27/03	Slip Sheet between floors	1	NR	Good	Non-Friable	ND
	M-26	03/27/03	Glazing (2nd floor men's restroom)	1	NR	Good	Non-Friable	ND
	M-27	03/27/03	Pipe Insulation	2	NR	Good	Friable	ND
	M-28	03/27/03	GWB & Joint Compound (Oil Storage Area)	2	NR	Good	Non-Friable	ND
	M-29	03/27/03	GWB & Joint Compound (Battery Storage Area)	2	NR	Good	Non-Friable	ND
	M-30	03/27/03	Off white 12x12 Tile	2	NR	Good	Non-Friable	ND
	M-31	03/27/03	Pipe Insulation (Boiler Room)	1	NR	Good	Friable	ND
	WA032-01 WA032-02 WA032-03	01/22/14	Off-White Wall Insulation from medical wing	1	NR	Damaged	Friable	ND

[1] 91001 = Admin, 91002 = Maintenance Building

[2] Refer to Section 4.1 of report for Condition descriptions, as observed during 2014 inspection

[3] From 1994 Report Occurrence of black mastic (which may be ACM) attached to tan mastic may be wide spread and more concentrated, so this was assumed to be an ACM. Since sample was not point counted this is still considered an ACM.

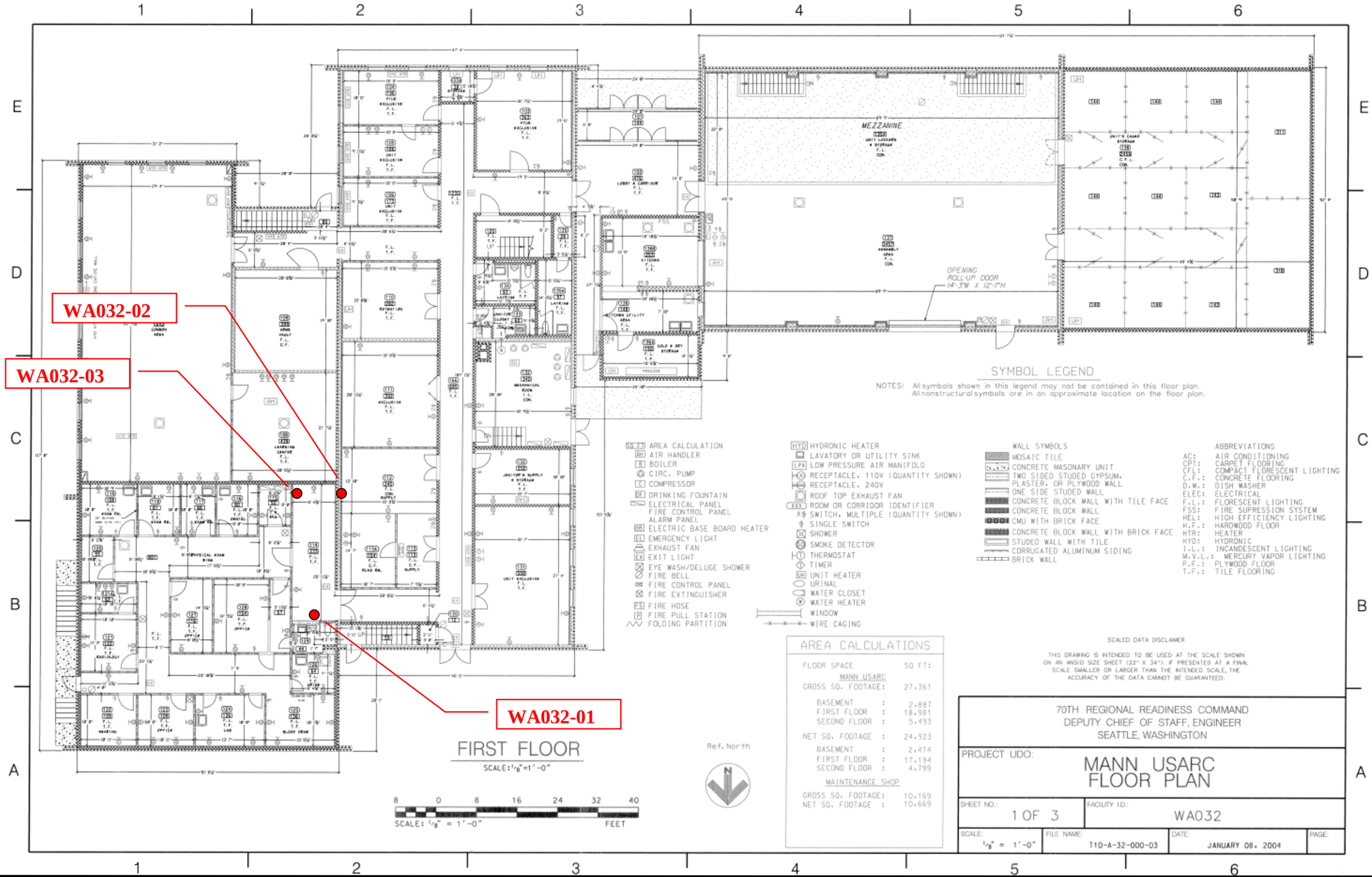
NR - not reported

ND - none detected

Red Text inicates a confirmed ACM

APPENDIX E

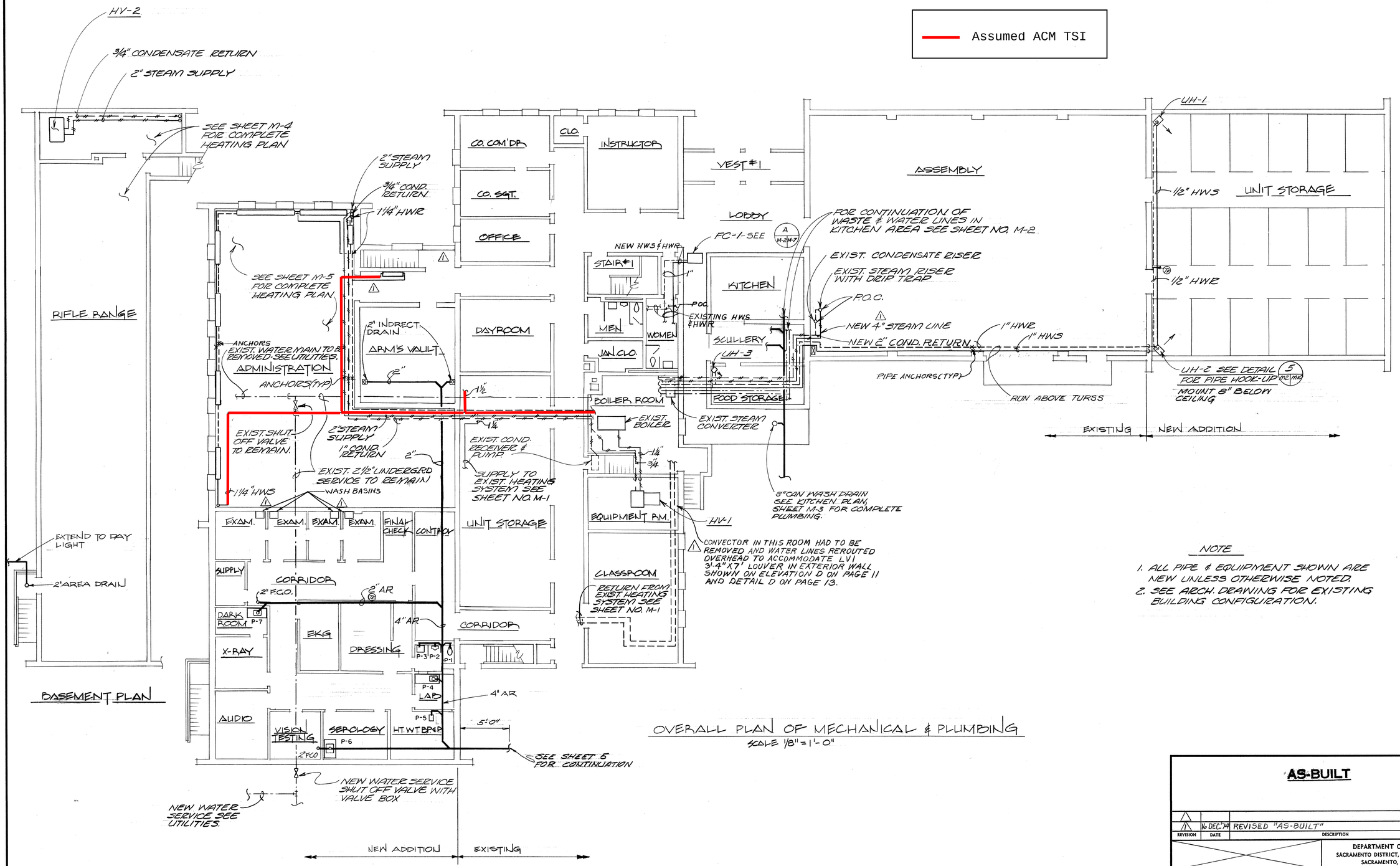
Functional Space and Homogenous Area Forms
Sample Location Diagrams



US Army Corps of Engineers
Louisville District

FIGURE 1
Asbestos Sample Locations

PFC Joe E. Mann United States Army Reserve Center
4415 North Market Street
Spokane, Washington 99207



OVERALL PLAN OF MECHANICAL & PLUMBING

SCALE 1/8" = 1'-0"

NOTE

1. ALL PIPE & EQUIPMENT SHOWN ARE NEW UNLESS OTHERWISE NOTED.
2. SEE ARCH. DRAWING FOR EXISTING BUILDING CONFIGURATION.

AS-BUILT

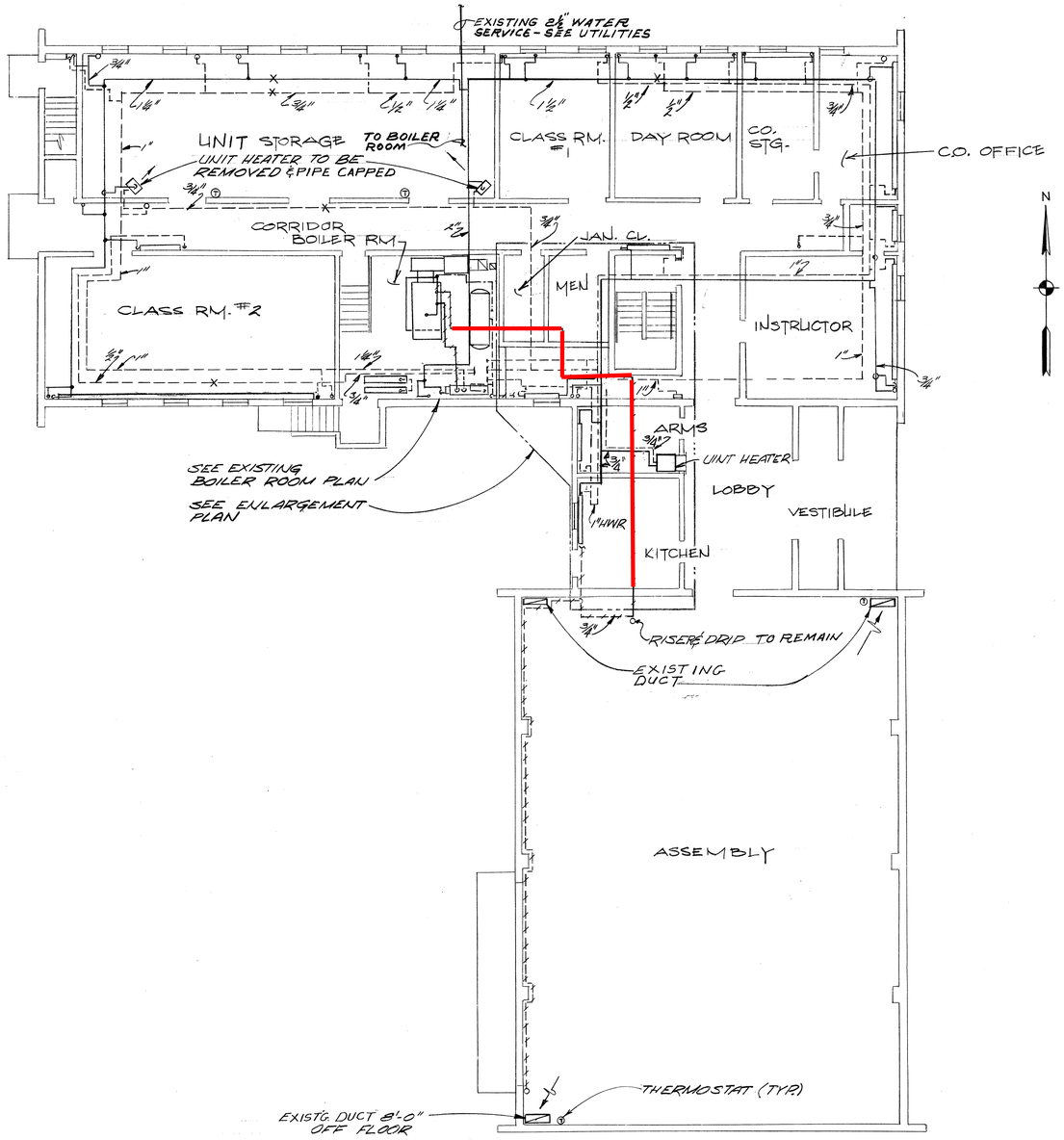
REVISION	DATE	DESCRIPTION	BY	BY
1	16 DEC. 74	REVISED "AS-BUILT"	V.S.A.	

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA

DESIGNED: N HUNTER
DRAWN: A SHAND
CHECKED: CHIEF, MECH. UNIT

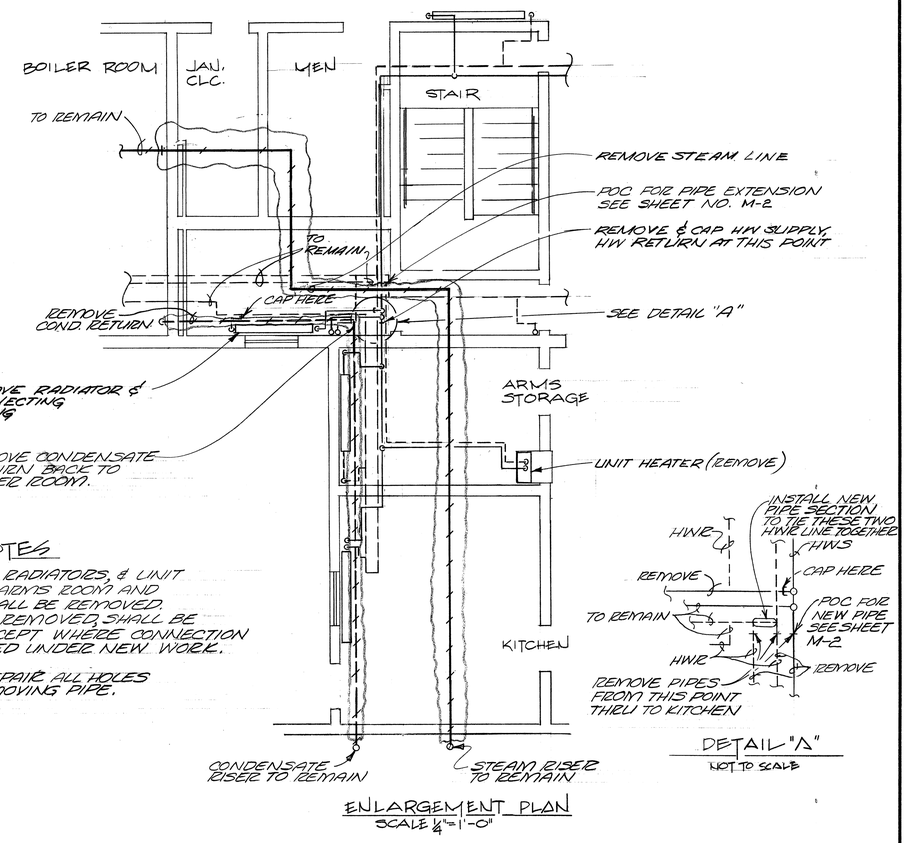
SPOKANE WASHINGTON
USAR CENTER
EXPANSION, 300 MAN TO 400 MAN
GENERAL HEATING & PLUMBING PLAN

SUBMITTED: CHIEF, MECH.-ELECT. SECTION
DATE APPROVED: 17 MAY 1973
SCALE: AS SHOWN | SPEC. No. 4445
SHEET 24 | FILE No. 159-25-136



EXISTING HEATING FLOOR PLAN
SCALE ⅛"=1'-0"

Assumed ACM TSI



ENLARGEMENT PLAN
SCALE ¼"=1'-0"

NOTES

1. ALL PIPING, RADIATORS, & UNIT HEATER IN ARMS ROOM AND KITCHEN SHALL BE REMOVED.
2. PIPES, NOT REMOVED, SHALL BE CAPPED EXCEPT WHERE CONNECTION IS REQUIRED UNDER NEW WORK.
3. PATCH & REPAIR ALL HOLES AFTER REMOVING PIPE.

DETAIL "A"
NOT TO SCALE

GRAPHIC SCALES
⅛"=1'-0" 1'0" 5' 10' 15' 20' 25'
¼"=1'-0" 1' 0' 1' 2' 3' 4' 5' 10

AS-BUILT

REVISION	DATE	DESCRIPTION	BY	BY

DEPARTMENT OF THE ARMY
SACRAMENTO DISTRICT, CORPS OF ENGINEERS
SACRAMENTO, CALIFORNIA

DESIGNED: N HUNTER
DRAWN: P SHANNON
CHECKED: CHIEF MECH. UNIT
SUBMITTED: CHIEF MECH-ELECT SECT.
DATE APPROVED: 17 MAY 1973

SPOKANE WASHINGTON
USAR CENTER
EXPANSION, 300 MAN TO 400 MAN
PIPING & EQUIPMENT
DEMOLITION PLAN

SCALE: AS SHOWN | SPEC. No. 4445
SHEET 23 | FILE No. 159-25-136

SHEET M-1

ENVIRONMENTAL ENHANCEMENT THRU ENGINEERING

APPENDIX F

Laboratory Bulk Asbestos Analysis Reports
Chain-of-Custody Forms

United States Department of Commerce
National Institute of Standards and Technology

NVLAP®

Certificate of Accreditation to ISO/IEC 17025:2005

NVLAP LAB CODE: 101895-0

McCall and Spero Environmental, Inc.

Louisville, KY

is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:

BULK ASBESTOS FIBER ANALYSIS

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).

2013-07-01 through 2014-06-30

Effective dates

DEPARTMENT OF COMMERCE
UNITED STATES OF AMERICA

For the National Institute of Standards and Technology

McCall and Spero
Environmental, Inc.
Specialists in Microanalysis

1831 Williamson Court • Suite 100 • Louisville, KY 40223
Phone (502) 244-7135 • (800) 841-0180 • FAX (502) 244-7136
E-mail: customerservice@mselabs.com • Website: www.mselabs.com

Date: February 3, 2014

Attention: Craig Coombs
USACE

Subject: Analysis of bulk samples for asbestos mineral fibers by Polarized Light Microscopy (PLM) with Dispersion Staining (EPA/600/R-93/116)

RE: MSE-P1314USC
Mann USARC Asbestos Inspection Project
USC# 442919

Dear Mr. Coombs:

McCall & Spero Environmental, Inc. has completed the analyses of the bulk samples we received from your offices on January 31, 2014. These samples represent the bulk samples from the Mann USARC Asbestos Inspection Project.

The PLM bulk analysis was performed according to the "Method of the Determination of Asbestos in Bulk Building Materials", R. L. Perkins and B. W. Harvey (EPA/600/R-93/116).

The results for the three (3) samples are summarized in the following report. Please note that for samples consisting of two or more distinct components, each component is analyzed and reported individually (EPA 40 CFR Part 61 [FRL-4821-71]).

Thank you for consulting McCall & Spero Environmental, Inc. Should you have any questions concerning these results, please contact our office.

Sincerely,

J. Scott Board, B.S.
Laboratory Director

NVLAP®
NVLAP Lab Code 101895-0

SUMMARY OF PLM BULK ANALYSIS RESULTS

Project Name: Mann USARC Asbestos Inspection Project USC# 442919
McCall & Spero Environmental Project No. MSE-P1314USC

MSE # P1314USC-	SAMPLE # DESCRIPTION	ASBESTOS TYPE & %	OTHER FIBROUS MATERIAL & %	% NON-FIBROUS MATERIAL	COLOR
001	WA032-01 Insulation	ND	Glass / 98%	2%	Yellow
002	WA032-02 Insulation	ND	Glass / 98%	2%	Yellow
003	WA032-03 Insulation	ND	Glass / 98%	2%	Yellow

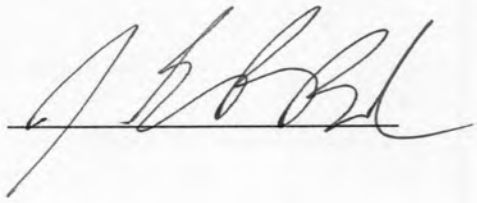
NOTES:

ND = None Detected CH = Chrysotile A = Amosite AC = Actinolite
CR = Crocidolite AN = Anthophyllite TR = Tremolite

For samples consisting of separate components, each component is analyzed and reported separately.

Results apply only to items tested. Quantification is accurate to within ± 10%. Results from this report must not be reproduced, except in full, with the approval of McCall & Spero Environmental, Inc. This report must not be used to claim product endorsement by NVLAP or any agency of the U.S. Government.

** EPA recommends that bulk materials found negative for asbestos or less than one percent asbestos by polarized light microscopy that fall into one of five dominantly nonfriable categories be reanalyzed by an additional method, such as transmission electron microscopy. (EPA Notice of Advisory, FR Vol. 59, No. 146 & Test Method EPA 600/ R-93/ 116).

Analyst: J. Scott Board, B.S. 

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BULK SAMPLE CHAIN OF CUSTODY FORM

Company: USACE **Telephone #** 502-315-6324 **Fax #:** 502-315-6309
Contact: CRAIG COOMBS **Client Project Number:** 442919
Relinquished by: CRAIG COOMBS **Date:** **Time:**
Written Report To: CRAIG COOMS **EMAIL:** CRAIG.A.COOMBS@USACE.ARMY.MIL
Project Name: MANN USARC ASBESTO INSPECTION
Turn-Around (Circle One): Same Day (24 Hour) 2-3 Day 4-5 Day Weekend Rush After Hour Rush
Analysis Requested (Circle One): (PLM Bulk Analysis) TEM Qualitative Analysis TEM Quantitative Analysis (4-5 Day)

For Laboratory Use Only

MSE Project # 0131411SC **Method:** EPA/600/R-93/116
Samples Received by: [signature] **Date:** 1/31/14 **Time:** 10:00

Client Sample Number	Location	Sample Description	Sampled By
WA032-01	HALLWAY	OFF-WHITE WALL INSULATION	COOMBS
WA032-02	DENTAL/PHARMACY	OFF-WHITE WALL INSULATION	COOMBS
WA032-03	PAD/TRIAGE/PRE-OP	OFF-WHITE WALL INSULATION	COOMBS